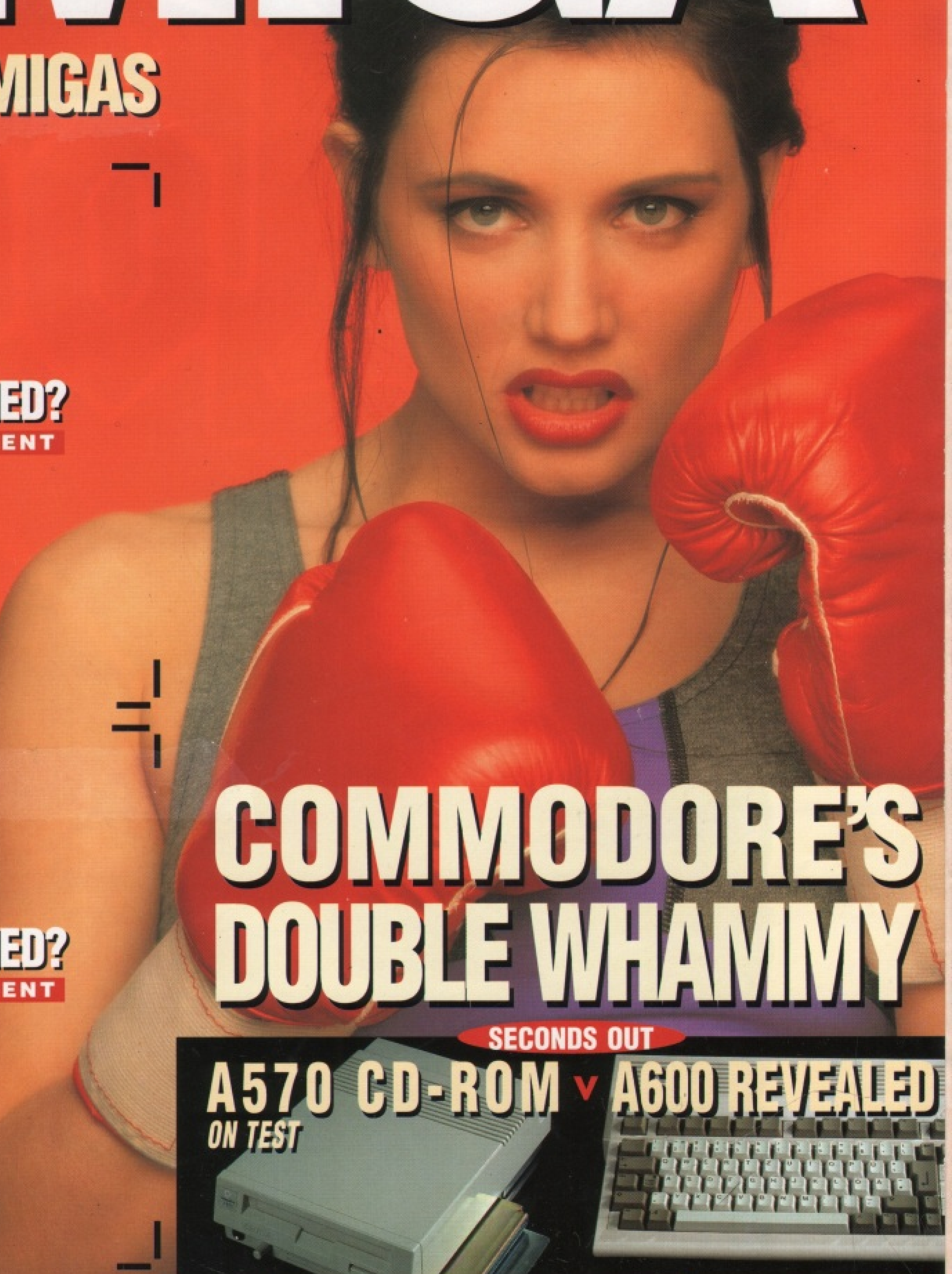
THE COMPLETE GUIDE TO THE AMIGA

CU AMIGA

FIRST REVIEW MONKEY ISLAND 2

TWO NEW AMIGAS



NO DISK ATTACHED?
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COMMODORE'S DOUBLE WHAMMY

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TWO NEW AMIGA MACHINES MAKE THEIR DEBUT – FULL REVIEWS INSIDE
TOP GAMES ■ STRIKER ■ JAG ■ BANE OF THE COSMIC FORGE ■ FLOOR 13 ■
LURE OF THE TEMPTRESS ■ DUNE ■ PRINTER & JOYSTICK BUYER'S GUIDES ■
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Inside

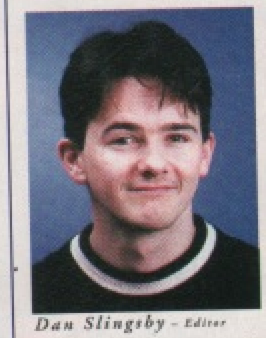
The future of CD technology has finally arrived as the long-awaited A570 CD drive touches base. In addition, its release is supported by a new version of the A500 – the more compact A600.



COVER: Photography by Julian Calverly Hair & Make-up Julia Bolino

OFF THE CUFF

EDITORIAL



Dan Slingsby – Editor

Hello and welcome to another issue of the UK's premier Amiga magazine, crammed full of reviews, news and comment about everything to do with the Amiga. If you're a regular reader of CU Amiga or a complete novice to computing, there's no better place to look for the most up-to-date news and views.

And what a month it's been for the Amiga! With the unveiling of the new A600 at the recent ECTS held in London and the first look at the A570 CD ROM drive, things couldn't look more rosy for everyone's favourite home computer. These two machines look likely to propel the Amiga towards the next decade and well into the 21st Century. Commodore have firmly shut the door in the face of their critics and have now got two platforms on which to build. If you want to get the low-down on both of these new machines, turn to page 30 for our in-depth reviews.

But that's not all, as we've also got our usual up-to-the-minute game reviews as well as our comprehensive productivity listings and extensive Buyer's Guides. Before signing off for this month and letting you get to grips with the meat of the issue, I'd just like to say a big thankyou to all our readers who filled in last month's questionnaire. We were stunned by the response. At the time of writing this, the last issue has only been on sale for two weeks but we've already received a staggering 4,000 replies. Over the coming months, you'll be seeing new sections appearing in CU Amiga as well as new ideas and innovations – a direct response to your own thoughts and criticisms. After all, this is your magazine!

But for now, enjoy the mag, and we'll see you next issue.

SPECIALS

After what seems like an eternity of waiting, we finally get our hands on the long-awaited A570 CD unit. This add-on to the basic Amiga effectively upgrades your machine to full CDTV compatibility, and opens up a myriad of new opportunities in software development and entertainment – or does it? CU Amiga takes an in-depth look at what to expect from the device when it is officially released. Will the A570 finally prompt developers to start producing the software we want to see and which takes full advantage of the format's admittedly excellent capabilities? Or will it be passed off as another slight hiccup by Commodore? Our extensive preview reveals all, and also takes a look at the competition offered by Philips' recently-released CDi system.

We also get to grips with the A600 – Commodore's new look, no frills machine. Coming with 1Mb as standard, a more compact case and a TV modulator as standard, the machine seems to have been targetted at the first-time user. However, that's not to say that it doesn't make any technical advancements, and the addition of a small smart card slot on the side of the machine indicates that a cartridge-based system is well on its way – possibly to take the consoles on, too? Does this mean the end of both piracy AND the 'Console Threat'? If you want to find out more about these two exciting pieces of kit, then turn to our lead feature on page 30, which goes into these machines – literally – to bring you the complete low-down on Commodore's dynamic duo.

REGULARS

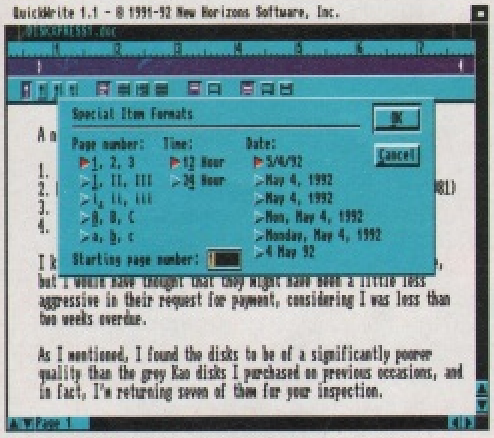
EDITOR Dan Slingsby **DEPUTY EDITOR** Steve Merrett **ART EDITOR** Andrew Beswick **TECHNICAL EDITOR** Nick Veitch **STAFF WRITER** Steve Keen **DESIGNER** Fiona Bourne **DISK COMPILER** Kenny Grant **ADVERTISING MANAGER** Tom Glenister **DEPUTY ADVERTISING MANAGER** Martyn James **SENIOR SALES EXECUTIVE** Michelle Gardiner **SALES EXECUTIVE** Karen Neill **CLASSIFIED/PRODUCTION MANAGER** Remzi Salih **IN-HOUSE SCANNING** Becky Willis **PRODUCTION ASSISTANT** Esther Rodd **MANAGING EDITOR** Steve James **PUBLISHER** Garry Williams **EDITORIAL & ADVERTISING** 071-972 6700

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ABC 90,251 July -Dec 1991



A contender for *Kick off II*'s crown? – You bet! Rage's *Striker* is here at last.



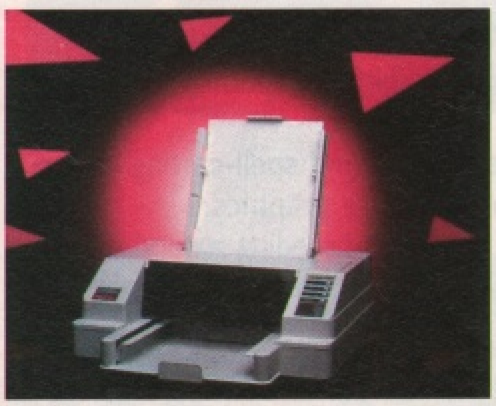
As yet another word processor makes its debut, we see if *QuickWrite* offers anything new.



Rombo's *Megamix Master* hits the streets, and CU Amiga's review pages.

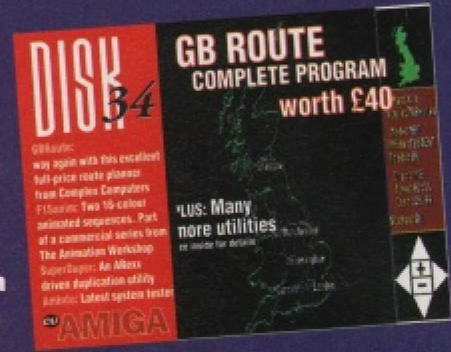


The busy world of Public Domain is once again explored, in both PD Scene and PD Utilities.



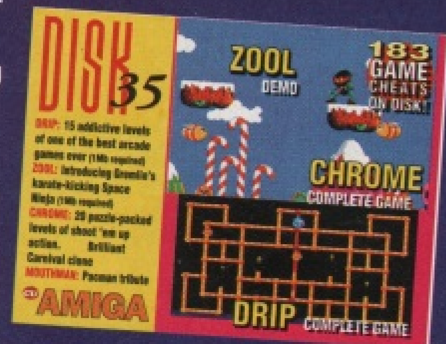
This month, we take a look at a selection of printers in the region of £400-500 in our extensive buyer's guide.

COVERDISKS



If you've ever been stuck in a traffic jam cursing your bad luck, fear no more! This month we're giving away *GB Route*, the commercial program that lets you find the quickest route from A to B, anywhere in the British Isles. It's a nifty piece of programming and lets you zoom in for a more detailed look at all the major roads and motorways. It's user friendly controls take no time to master, and you'll soon be able to plot the best route to avoid potential traffic jams!

Also on offer are some essential disk utilities which help check out the internal workings of your machine as well as making back-up copies of your work. There's a host of other programs on offer, but you'll have to read the Coverdisk pages and load up the disk for more details.



On the game's front we have 2 massive full games in the shape of *Chrome* and *Drip* which will have you playing them until the early hours. Plus there's also a sneak preview of Gremlin's *Zool* game, which could be to the Amiga what *Sonic The Hedgehog* is to the Sega Megadrive.

FOR MORE INFO ON THESE GREAT DISKS, TURN TO PAGE 18...

blue pages
contents



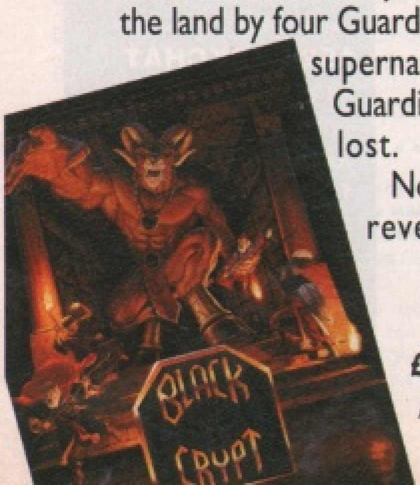
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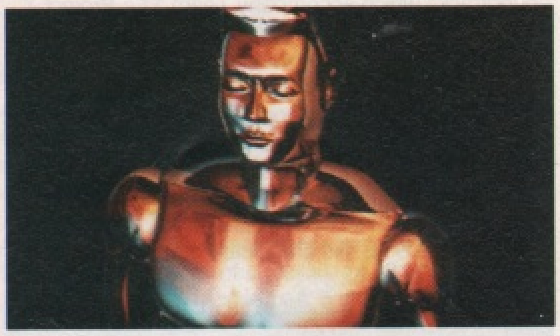
US GOLD ENTER PRODUCTIVITY STAKES, DPAINT 4.1 ARRIVES



3D ANIMATION MADE EASY

US Gold have taken their first tentative steps into productivity software, linking up with US-based company Cineplay to distribute *Playmation*, a 3D graphics and animation studio from the inventors of Claymation – the latter technique used to bring the California Raisins to life and which can also be found in countless pop videos and movies. *Playmation* will debut on the Amiga towards the end of the year. Featuring a user-friendly interface which should appeal to beginners, the program will also be packed with advanced features such as ray-tracing, reflection maps and complex organic objects.

Cineplay President Kellyn Beck, on a recent promotional tour of the UK, explained: '*Playmation* features an innovative new approach to 3D graphics making it easy to create life-like characters and animation, including 3D cartoon characters with lip-synching. It's easy to create 3D objects and characters with a natural look, because the program uses spline patches instead of traditional polygons. When you sculpt and move objects, they automatically bend and stretch as if they're alive. In addition, *Playmation* comes with a library of objects and animations so anyone can create professional-looking 3D graphics and videos.'





Not content with producing what they claim to be a 'revolutionary graphics package', Cineplay are also hard at work on an adventure game which will utilise some of the program's strengths. *Free DC* has been more than four years in the making and features hundreds of digitised photographs taken in and around Washington DC, as well as 170 separate locations, randomised set-ups, and multiple endings. On show at the recent ECTS, the game certainly looked the business and we'll have a full review as soon as the Amiga version is finished.

DPAINT 4.1 RELEASED

With little fanfare, Electronic Arts have just published an update to *DPaint 4*. Version 4.1 features further enhancements to what has become known as the best graphics package on the Amiga. These refinements include full font scalability which was promised for version 4, but which failed to materialise. For the full story, turn to our in-depth report from New York's recent World of Commodore show which starts on page 12.

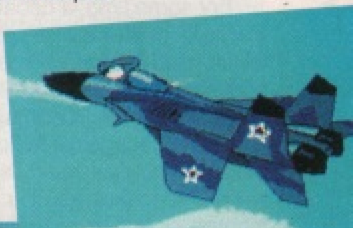


ERIC SCHWARTZ VIDEO

Prodisc PD are set to release a series of videos featuring the very best work of some of the leading Public Domain talents. Their first video features the work of Eric Schwartz whose spectacular animations have consistently been voted the best of their kind. It's not meant to be a comprehensive selection of his mini-cartoons by any means, as the package is touted as a 'Best of...' compilation.

Unfortunately, the title's something of a misnomer as a lot of Eric's best anims have been omitted from the collection. It's obvious why work of such quality as *The Anti-Lemmings Demo* and *Amy at the Movies 2* has been included, but some of the short looping animations of the Stealth fighter are very weak. Surely there was enough room to include such classics as the original *Amy at the Movies* or the first *Amy Vs Walker* short. Indeed, it seems a pity to go to all the trouble to produce such a video and not include ALL Eric's work and label it as the definitive collection.

Having said that, Prodisc's first release should have a home in everyone's collection, especially those people who haven't enough memory to run some of Eric's more intricate animations. Copies of the video are available from Prodisc and cost £4.50 plus 60 pence to cover post and packaging. Please make all cheques/POs out to Prodisc and send to: 81 Middleton Hall Road, Kings Norton, Birmingham, B30 1AG. Tel: 021 628 1450.





PUBLIC DOMAIN LIBRARY RAIDED

In a dramatic development sure to send shock waves throughout the PD industry, the South West Software Library were raided by Trading Standards officials recently and a number of disks confiscated. The disks weren't taken because of any pornographic or obscene content, as has happened many times before with other PD libraries, but because the disks were said to breach copyright laws.

Titles confiscated included ones featuring digitised pictures of Batman, Ghostbusters, Terminator 2, Star Trek, Robocop and Gremlins. In addition, a number of sampled music disks featuring the work of such high-profile groups as the Pet Shop Boys, Tiffany, Kylie Minogue and Queen were also taken.

NO ONE EXPECTS THE SPANISH INQUISITION

Expo'92, being held in Seville, is the home of VEST – the Voice English Spanish Translator. This new system is capable of almost instantly translating spoken English into spoken Spanish.

The translator is based on a machine purpose built by AT&T. 127 parallel processors crunch numbers at over 1000 MIPs running the parser, rule-based translator and speech generator. The software and hardware was developed jointly by AT&T and Telefonica D'Espagna to try and break the language barrier that exists between many large trading nations. Any telecommunications company which could offer an on-line real time translation service would be sure to clean up on those long-distance business rate calls.

The system isn't perfect. At present it has a vocabulary of a little under 500 words (the average adult has a vocabulary of over 30,000), all to do with currency translations, and it can only recognise words spoken by sixteen people, but it's a start.



For some time, a debate has raged about whether Public Domain libraries could legally distribute disks which used images and sounds sampled from heavily copyrighted records and films. Such disks are commonplace on the PD circuit and, if a legal precedent was to be set against the distribution of such disks, many PD houses could be forced to close. It's long been argued that, as PD disks are ostensibly distributed for little or no profit, the companies who sell such disks are only meeting their immediate costs and are not profiteering on the backs of licensed properties. In a court of law, however, it is doubtful if this flimsy argument would hold up to much scrutiny.

Upon contacting the Trading Standards Office, CU was informed that 'the matter is receiving the department's fullest attention' and that 'an announcement is imminent'. We'll bring you further news as it happens.



NEW GAMES PUBLISHER MAKES IMPRESSIVE DEBUT

Last month's issue featured news on two new software houses, namely Rage Software and Mirage, and their impressive roster of new games. This month it's the turn of Prestige, another new games publisher. Based just outside Frankfurt, Germany, the new softcos have three titles in the works. *Doofus*, a cute platform game in the same vein as *Fire And Ice*, is the subject of a First Impressions piece in this very issue. *Sword of Honour* encompasses an arcade-adventure ninja-style kickabout while *Catch 'Em* is an odd platformer in which various Zoo escapees have to be rounded up and returned to their animal prison. All three look to have good potential and we'll have full review as and when the products become available. Worldwide rights are being handled by DMI who can be contacted on 0753 686000.







GOLDEN JOYSTICK WINNERS

If you were one of the many thousands of voters in this year's Golden Joystick awards, you might be interested to know who carried off the software industry's equivalent of the Oscars. Electronic Arts scooped the prestigious Software House of the Year award for an outstanding 12 months which saw the release of *DPaint4* as well as classic games such as *PGA Golf*, *Bird's of Prey*, *Bard's Tale III* and *Populous II*. Other winners were: Best Computer Graphics (*Heimdall*, Core); Best Computer Soundtrack (*Monkey Island*, US Gold); Best Computer Simulation (*Jimmy White*, Virgin); Best Computer Coin-op conversion (*Toki*, Ocean); 16 Bit Computer Game of the Year (*Heimdall*, Core); and Programmer of the Year (Archer Maclean).





ACCLAIM USES SPIDER SENSE

Next year's hottest movie, Spiderman, might only be in preproduction, but that hasn't stopped Acclaim from landing the license – if our insider sources are to be believed. Even though Arnold Schwarzenegger has yet to be confirmed as Spiderman's arch foe, Doctor Octopus, the interest in the game license started as soon as news of the film project leaked out. Both Ocean and Gremlin were rumoured to be in the running, but it looks like big spending Acclaim have managed to pull off the deal.

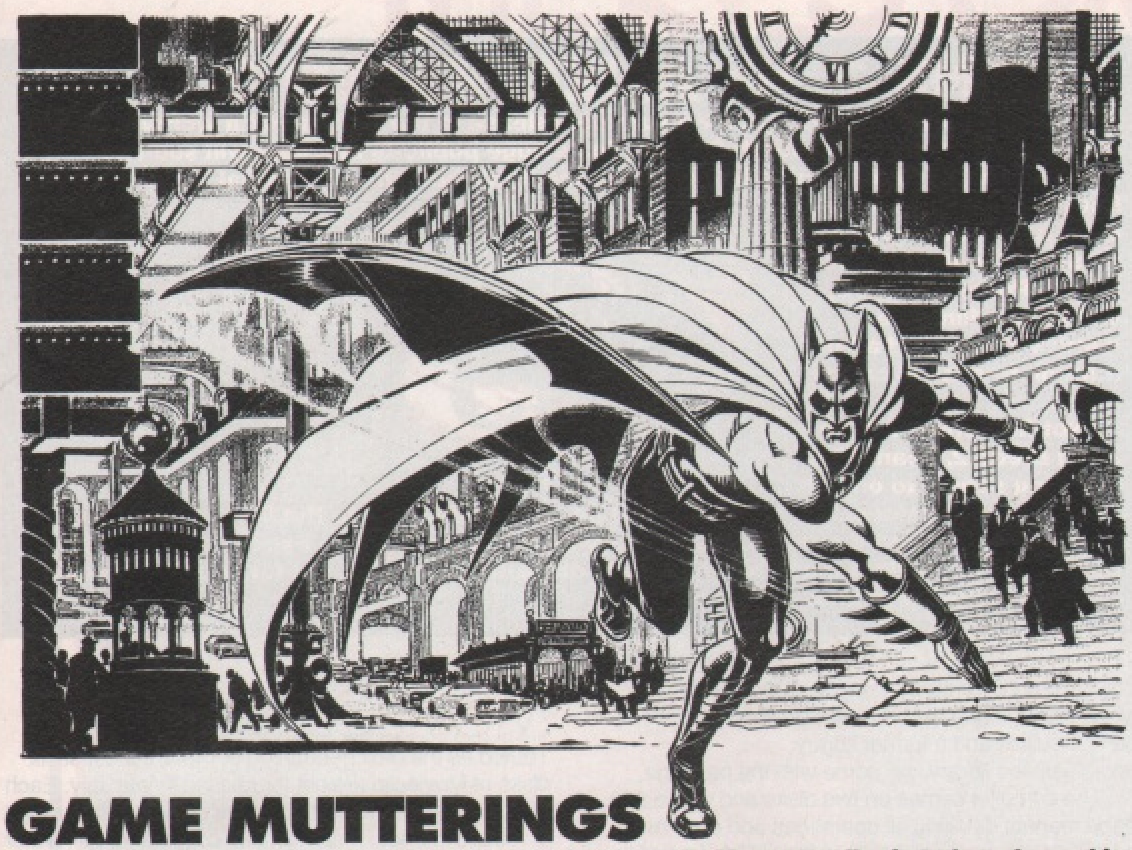
There's no news of the creative team assigned to produce the game as yet, but likely candidates include Rage (formerly Special FX), Dementia and even Sensible Software.

NOW THAT'S WHAT WE CALL MUSIC

As the musical capabilities of the Amiga gain more and more acceptance, and the boundaries of what is and isn't possible are pushed further back, so the musical scores of today's games become ever more impressive. Recognising some latent demand for such material to be released independently of games software, Allister Brimble, in association with Team 17, has released a compilation of his best work.

For those not familiar with the Devon-based maestro's work, Allister is the talent behind the blistering soundtracks which accompany Team 17's *Project X*, *Alien Breed* and *Full Contact* games. All three are included on the stereo cassette as well as the 'old timers' track from *Project X* and two original scores never before released. If you want to appreciate Allister's music in all its glory, a copy of his cassette is yours for the miniscule fee of £3.49 (cheques/POs made payable to Allister Brimble) and sent to: TEAM 17 MUSIC OFFER, Hill House, Lapford, Crediton, Devon, EX17 6QE. No credit card orders, please.





GAME MUTTERINGS

After respectable sales on the PC, the Amiga follow up to Megatraveller is to be released in June. *Megatraveller 2: Quest For The Ancients* offers 127 detailed worlds to explore each with at least 500,000 square miles of terrain. * *Cyber Race* is a futuristic racing sim where the galaxy's best drivers compete over some of the most demanding tracks ever devised. Produced by Cyberdreams for Mirage, the game is set to appear early next year * Virgin's *Shuttle* sim is finally ready for take off, after almost a year of continuous hype. Look out for the full review next issue. * *Jim Power*, a new game from Loriciel, is an arcade adventure about a self-styled vigilante who has to save the President's daughter from demons. Music and sampled speech for the game are being handled by Chris Fulsbeck, the man behind the hugely successful *Turrican* series, and the gameplay is reminiscent of both the upcoming *Risky Woods* and *Switchblade 2*. * Gremlin must be hoping that Nigel Mansell keeps up his winning start to this season's *Formula One Grand Prix* competition. This isn't just a case of unbridalled patriotism, though, because the Sheffield-based softco is busy preparing *Nigel Mansell's World Championship* for an autumn release. * With *Elite 2* already in the bag, Konami have signed up another major game. *Batman™ Returns* is set for a Christmas release and is almost certain of a top three position. Rage Software, the people who brought you the superlative *Striker* soccer game have been commissioned to produce the game, so it should be a winner. *



AMIGA STARTER PACK

If you've just bought an Amiga, you might be interested in a new starter pack put together by TechnoPlus. Designed to appeal to first time buyers and the more experienced user alike, the Amiga Starter Pack consists of a Quickshot 131 deluxe joystick, a dust cover, mouse pad, 5 blank back-up disks, disk cleaner and a File-a-disk record system. Best of all, TechnoPlus have also included the superb arcade adventure, *Prince of Persia*, and the games creation package, *AMOS*. All these goodies are yours for only £44.99. For further details, ring TechnoPlus on 0604 768711.



NASA CDTV DEAL

The guys that gave you Teflon, the universe's most expensive car and chicken supreme toothpaste are celebrating 25 years of manned exploration. To do it in style they have released a CDTV education title, with material taken from Apollo, Voyager and Viking missions.

The interesting thing is that it is one of the first titles (outside the demos Commodore have cobbled together themselves) to use the CDXL format. CDXL is the CDTV's attempt at animation direct from CD. Running at 10 frames a second the animation only occupies a quarter of the screen. It's not exactly like being at the movies, but it's still more impressive than anything the CD-I lot have turned up with.

The NASA disk lasts for 50 minutes, full of informations about the early days, the threat of the Russians in their underwear, the Viking landers right up to the Shuttle program.

CHEATS UNLIMITED

You've probably already noticed the Game Tamer cheats list on one of this month's coverdisks. It's the first in a semi-regular series of disk-based cheats to help you on your way with some of the most popular Amiga games available. If you thought our initial listing of 183 cheats was impressive, you ain't seen nothin' yet!

In the meantime, to quench our game-playing readers thirst for an infinite number of tips to top games, we recommend you pick up a copy of Dean Corish's Computer Games Guide (3rd Edition). Covering a wide variety of home computer formats (including the Amiga), the book offers hint and tips to more than 1,250 games over 750 pages. In all, there are in excess of 12,000 hints, tips and pokes up for grabs. Nearly every imaginable game is tipped, right up to such recent releases as *Oh No! More Lemmings, Blues Brothers, Leander, Lotus 2, Mega Lo Mania* and *Monkey Island 2*. Released on May 1st, the book will retail for £14.95. For more information, 'phone the publishers, Kuma Computers Ltd, on: 0734 844335.

TEAM TALK

After their number one hit with *Project X*, Team 17 have released details of three more games that are nearing completion. *Codename Assassin* features a *Strider*esque main character with over 200 frames of animation. As is becoming a trademark of Team's games, this one features lots of excellent speech effects and more than 100 colours on-screen thanks to some stunning Copper shading for the skies. With more than 800 screens in all, you take control of the assassin of the title with the aim being to assassinate



the leader of an underground organisation. *OHP Racing* is only a working title for what promises to be an overhead arcade racing game crammed full of different vehicles, features and terrains. Each track will be approximately 20 times the size of a normal screen with 80 different levels to test your skills on. Saving the best until last, *Superfrog* is what can only be described as a wacky platform game featuring some excellent cartoon graphics and animation. At the time of going to press, Team were hoping to get Eric Schwartz to produce the game intro and were in negotiation to sign up Vic Reeves and Bob Mortimer ➤

to supply the voices (we kid you not!). In all there will be six enchanted lands to discover, lots of hidden bonus sections, and lots of extras. All three games are 1 Mb only, though with most people possessing expanded machines these days, that certainly hasn't hindered their previous memory-intensive releases. All three are scheduled for release in the autumn.



ALIENS 3 Vs ALIEN BREED 2

With the new Aliens movie set for a summer release in the States and a worlwide showing later in the year, Twentieth Century Fox's huge publicity machine will soon be moving into top gear. Hoping to cash in on the film's box office potential, Acclaim have bought the rights to produce a home computer version. Top development house, Probe Software, will be handling the game's design and a late autumn release is on the cards.





Not far behind will be *Alien Breed 2*, Team 17's stunning sequel to one of last year's hot games. The gameplay will be almost identical to the first game, although there'll be many more puzzles to solve as well as aliens to blast. Expect some HUGE levels together with a much bigger variety of marauding aliens out for your blood. *Alien Breed 2* is due for release early next year.

AMIGA ROBOTICS

Switchsoft, the robotics people, are extending their range of kits for Amiga owners.

The first is a complete robot buggy kit. This buggy is plugged in via the Switchsoft IO port and uses two slow speed gearbox motors to drive the unit and perform turns and manoeuveres. Switchsoft reckons that the complete buggy can be up and running inside 20 minutes. There is even a helpful batch of notes on how to develop robot control using BASIC.

The Temperature & Light Experimenters kit, costing a



modest £11.95, contains, surprisingly enough, a thermistor and a photoreceptor as well as some driving software to allow you to make graphs of temperature changes in your home. The light sensor could be combined with the robot buggy to give it sight, allowing it to track a black line on the floor, etc.

The last new kit is a mains controller, finally allowing you to control mains devices via the Amiga. Just think of it, the Amiga could automatically turn the kettle on when you sent Real 3D away to render something...

For more information on any of these products, or in fact for any information or supplies concerning robotics and the Amiga, you can contact Switchsoft on 0325 464423

REXX COMPILER ANNOUNCED

The Dinnen Edwards Group of Southfield, Missourri have announced a Rexx compiler. The advantage of a compiled program over the more usual interpreted version is speed. Compiled Rexx scripts are expected to run around 15 times faster. With that kind of speed macros will run as though there were part of the original program code.

All compiled scripts will be gauranteed 100% re-entrant so they can be made memory resident, cutting down execution time even further. All rexxsupport.library and rexxmathlib.library functions can be built in and a further library, rexxplsextend.library, will come with the package.

The compiler comes on two disks and with a 270 page manual detailing all operations and error messages. At the moment it sells in the U.S.A. for $150, expect about £120 when it's eventually picked up by a U.K. distributor.

SURROUND SOUND CDTV?

Dolby Laboratories, the big name in sound reproduction technology is now working on a digital surround sound system for the home.

At present Dolby stereo is used in many 'selected theatres' throughout the world and is favoured by the big Hollywood film companies. This system SR-D is recorded onto the film either as optical data or on a magnetic track.

The home system is being developed to facilitate the transfer of big screen films to the video market, the aim being that a suitably equiped home could reproduce the exact sound of the original, even down to the 3D spatial effects.

The technology, including the 5.1 coding system would allow five channel surround sound to fit into a data channel of 320k per second, well within the reach of CD.

The decoding circuits of the AC-3, as the domestic system will be known, will all be laid into a Digital Signal Processing chip with a list price of perhaps as low as $20. Dolby are already courting the Philips headed CD-I conglomerate and hoping that the chips maybe included in the next generation of digital audio machines such as the DCC and Sony's Mini-disc. Do Commodore have any plans to include the device in a later release of the CDTV?

MOVIECLIP RELEASE

Touted as the next generation of clip art, the first six disks of Movieclip are set for release in late July. Each disk is dedicated to one particular subject with a range of related images. First releases cover land, rail, water and air, with ready made animations, cut and paste graphics and scenic backgrounds.

All graphics are fully integrated and share the same 32 colour palette and scale. Road Traffic 1, Air Traffic, Rail Riders, Horse Traffic, Water Traffic and Raod Traffic 2 will retail for £10 each. For more info contact: Diskotech, Melin-Y-Garth, Builth, Powys, LD4 4AW. Tel: 05912 242.



TAKING THE MICKEY

Ever since Steam Boat Willy, Mickey Mouse has been a firm favourite with children from all walks of life. Now Infogrames are set to release a series of Mickey Mouse educational disks in which the squeaking rodent offers help with numbers, colours and shapes, puzzles, memory, letters and words.

Aimed at children from 2-8 years of age, the programs look set to challenge the dominance of the Fun School series of educational disks and will be released over the summer. We'll have full reviews soon.



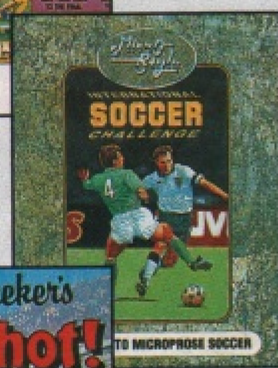
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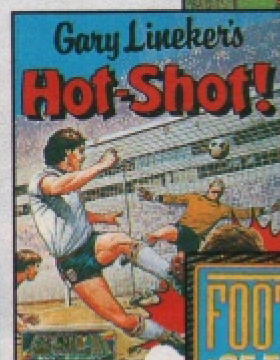
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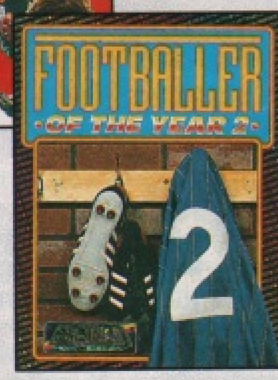
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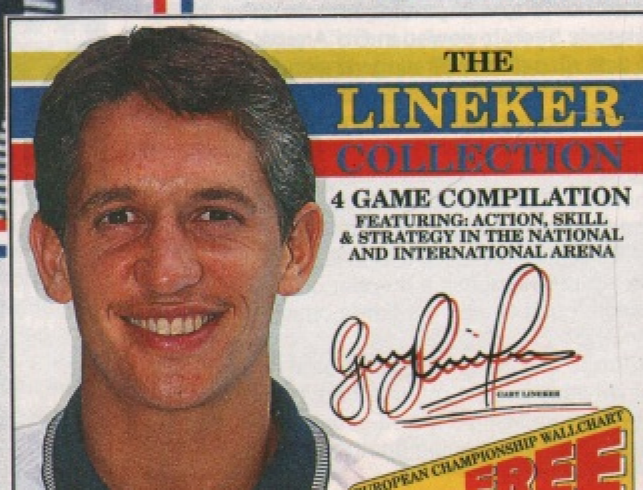
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ADPRO 2.1 ON SHOW, AMIGA CENTRE SCOTLAND FLY THE FLAG

CU IN AMERICA

NEWS SPECIAL

The official 'World of Commodore' Show was in New York at the end of April and so was our globe-trotting technical editor, Nick Veitch. Here's his exclusive report from across the Atlantic...

ON SHOW

The main business of the show was discovering what new and exciting products we would see shortly appearing in the UK. Despite most American developers in the USA experiencing mild financial difficulty in the present economic climate, they still seem to have a lot of new products. Noticeably, there wasn't much support for the CDTV – Commodore's 'baby' has failed even more spectacularly in the land of the free than it did here, but Commodore themselves have hopes of reviving its fortune. They were plugging the CDTV quite heavily, even to the point of mentioning it repetitively in the official show guide.

ASDG

ASDG had a walk-in lecture area rather than a booth. There were no machines actually on display, but anyone who popped in to take the weight off their feet, was treated to a well-produced video demonstrating the latest version of Art Department Professional. You will remember that *AdPro 2.0* has already been reviewed in CU Amiga. The video was also demonstrating version *2.1*. The update is the inclusion of a powerful frame editor. *AdPro* has always been excellent at processing static images for publishing or Multimedia work, but what if you want to process a range of frames from an animation? Until now *AdPro* has been designed around the one-off job, where each image needs some individual attention. It is possible to create an ARexx script to process a number of frames in sequence, but it could be a time-consuming and laborious job.

AdPro 2.1 includes FRED, a frame editor which allows an easy path to reformatting, recolouring or otherwise processing a linked sequence of frames. Looks like you'll be seeing another review of *AdPro* soon in CU Amiga.



AMIGA CENTRE SCOTLAND

The only UK-based (although for how long Scotland remains part of the UK is open to question) exhibitors were showing the excellent Harlequin graphics card. The card combines 24-bit graphics with an 8-bit alpha channel making it the most professional system available for the Amiga. It has been available in European format for some time, but this is the first chance many of our American cousins got to have a peek. Generally, I think they were impressed. It was a sight that brought back memories of the Los Angeles Olympics. Britain may have got trounced in virtually every other event, but the track athletes did great. Perhaps Amiga Centre Scotland is the great British Olympic hope.

Also on display was the V-Lab Digitiser Card mentioned in CU last month. After some initial problems with Robin Hood and a dodgy video-player it was soon grabbing Alan Rickman with ease and also displaying pictures (via Harlequin) of Julia Somerville and everyone's hero, John Major, looking better than they do on my TV. V-Lab will be reviewed in next month's issue.

HYPERMEDIA CONCEPTS

You may remember that this company produced the Fred Fish collection on CDROM a while back. Well, the CD has been updated to include the first 600 Fish disks. In fact, there are now two CDs, the other one containing the exact same data but all in LHArc format, designed to be used by BBS systems. Both discs are preconfigured to act as a Parnet node allowing the CDTV to be used as an intelligent file server – just as well considering the current lack of development passing for the A570 at the moment.

The disc is updated every four months, but uncompressed it will require two discs to handle the complete collection before long.

CARINA

There is a well-known astronomy program called *Distant Suns* which stunningly recreates the heavens on your Amiga. Carina's equivalent, called *Voyager*, is a dynamic sky simulator which aims to recreate an entire planetarium using just an Amiga. Not only does it generate starmaps to help with your nocturnal gazing, but there are also several animated sections dealing with, amongst other things, our solar system and the orbits of the prominent moons of Jupiter.

Carina's stand drew a large crowd of visitors, all eager to see the amazing animated journeys through the solar system which were created seemingly effortlessly in real-time on the Amiga. Voyager is apparently used in many American schools and colleges to help students get to grips with planetary mechanics and the basic aspects of astronomy. We will be featuring a full review of *Voyager* soon, hopefully in a head-to-head with the latest version of *Distant Suns*.

NEWTEK

On first entering the hall, visitors were faced with an astounding display across the NewTek 'Video Wall'. NewTek booked late to join the show, but arrived in time to give a stunning display of the latest software upgrade for the much-fabled Toaster. The latest version features a more integrated imaging and display system, making the various software components of the toaster work more closely together and thus greatly cutting down production time.

Questioning various members of the NewTek team yielded only vague assurances as to when a PAL Toaster would be produced. 'Early next year' was the most popular answer. Why aren't NewTek making more haste to cash in on the growing video production market in Europe? Essentially because this would require a complete redevelopment of the Toaster. This wouldn't be much of an obstacle given the great opportunity to be found in all those production houses, but the Toaster relies very heavily on some custom Sony video chips. Unfortunately, development of this series seems to have turned out to be a lot slower than originally anticipated – there are no PAL versions of these chips. To base the Toaster around some completely new chips wouldn't be a case of redevelopment, but a severe redesign job. Apparently, when NewTek boffins ask Sony when a PAL chip set may come out they say 'early next year...'



GVP FLOOD MARKET WITH NEW PRODUCT, A530 TURBO READY



GOLD DISK

The makers of *ProPage* had nothing particularly new to show, but were hosting a load of mini-lectures at their stand for some of their recent releases, such as *Video Director, Professional Calc* and *Propage 3.0*. The lectures were attended by capacity audiences for almost the entire duration of the show, and were very professionally done – despite some unfortunate trouble with a video deck and a time base corrector. Gold Disk were also taking advantage of the absence of Soft-Logik to push ProPage 3.0 hard. There were no sneak previews of either *ProDraw 3.0* or *Pagesetter III* but rest assured they will be available soon.

Dr T's

The music specialists had no competition at the show, but had only taken a small stand anyway. On display was the new BoomBox, a low-end fun interactive music package, designed purely for entertainment. They obviously weren't expecting any professionals to turn up but they were still occasionally asked to demonstrate some of their more serious notation packages. The music scene for the Amiga is highly different in North America from here in Europe – there is virtually no competition from the ST, the terror of small studios in this country.

THE GREAT AMIGA RAILWAY

This wasn't a stand as such but a giant HO scale railway completely controlled by the Amiga. This was a co-operative project between Amazing Computing, CATS and ASDG and didn't really arouse much interest which is a shame because it was very well put together – a bit like the CDTV in that respect.

GREAT VALLEY PRODUCTS



It was like Christmas at the GVP stand. Everything was new and, for the most part, exciting. Probably the most interesting from the point of view of the average user, was the A530 Turbo hard drive. The Turbo features a 40MHz 68030 chip, making your A500 as fast as an A3000! The drive also has the ability to accept up to 8Mb of 32-bit wide DRAM chips, installed as handy (and fairly cheap) SIMM modules. There is even a socket for a maths co-pro. The advantage of this system over previous accelerators is that there is no need to even look at the fixing screws on your Amiga.

For the A2000, the long-awaited G-Force 040 Combo board made an appearance. Featuring either a 25 or 33MHz '040 chip, the board will also ship with 4Mb of 60ns 32-bit RAM – expandable to a full 16Mb (or 64Mb once higher capacity chips become available). The board also adds an extra parallel port and a high speed serial port.

The most interesting new product – at least for me – was the EGS card: the Enhanced Graphics System. Put simply, it is a programmable display card which allows the Amiga to output high-quality RGB graphics quickly at user-definable resolutions from standard PAL up to 1600x1280 in 16 million colours – that's non-interlaced, too. The EGS is a really special piece of hardware which has to be seen to be appreciated. The truly amazing thing is that the EGS supports any application which runs using the Workbench graphics libraries. By intercepting library calls and performing them using custom chips on the card, the EGS is able to not only provide greater resolution support for workbench applications, but also expand the functionality of Workbench itself and allow effects such as moving filled windows as opposed to just outlines.

This workbench intercept idea means that a lot of software will already support the board. Programs such as *Cygnus Ed, ProPage* and *Pagestream* will be greatly enhanced. Unfortunately, the EGS only works on the 32-bit bus of a GVP accelerator card, but this is just the sort of thing that could convince people to get one.

On the slightly outlandish side was the Phonepak. This, it transpires, is a combination of hardware and software which transforms your Amiga into a personal messaging workstation. Incorporating a fax card it enables you to send and receive faxes directly as well as voice messages. Users can then access their faxes or voice messages either directly or from a remote location. In the States there is a revolution going on in touch tone phone applications which haven't yet arrived in a big way here – perhaps the Amiga will be at the forefront of such a revolution in this country.

MIGRAPH

The company may be renowned for making scanners and related hardware, but soon they will probably be best known for their software. *Migraph OCR* is an *Optical Character Recognition* system, a software program which allows you to take any image of scanned text and turn it into a standard ASCII file. Imagine – no more typing in lengthy tables of data or entering text from a printed letter.

Of course, *OCR* isn't new, but it *is* on the Amiga, and it is amazingly quick and accurate. The software builds up a recognition dictionary of different font styles which enables it to guess fuzzy or badly printed words to a 99% accuracy after some time. CU can't wait to get their hands on such an astoundingly-useful piece of software so look out for a review real soon.





CENTRAL COAST SOFTWARE

You may not use Mac2Dos, you may never have heard of Dos2Dos, but if you have a hard-drive, it's more than likely you have heard of *Quarterback*. The premier disk archiving utility has undergone another metamorphosis, and now comes with a much-improved user-interface and a new Workbench 2.0 look. As a result, *QB* is way ahead of anything else on the market. Why Commodore didn't snap it up and bundle it with WorkBench 2.0 is a mystery, though. *Quarterback* is reviewed in full elsewhere in this issue.



NEW HORIZONS

New Horizons are a new company who have made their fortune from an excellent word-processor which is to the Amiga what Microsoft Word is to everyone else – *ProWrite*. Amongst their new line-up where updated versions of *Quickwrite* and *Flow*, the very flexible text processor which uses outlining to help you construct your thoughts in a logical fashion.

SCALA

The multimedia boys were there with a world premiere of Scala for the CDTV, a specially-adapted version of Scala 500 redeveloped for use on Commodore's custom multimedia platform. Scala is probably the most popular titling/authoring system available, in the USA as well as in Europe.



OCTREE

Calligari made a name for itself a while back and, whilst it didn't achieve a great deal of success over here, that could all change with the latest releases. Calligari 2 follows along the same lines as the original. It is a 3D ray-tracing and modelling package that forgoes the more traditional three-view projections for a more Virtual Reality-style vector graphic perspective display. Designed primarily to be easy to use, most functions are easily performed to great accuracy using just the mouse in a few swift movements, without having to keep clicking in different view windows.

There are a couple of high end incarnations, too; one providing support for various 24-bit cards and a broadcast version which includes TARGA/Vista support and offers slide output at 8000x8000 resolution



PACIFIC DIGITAL EFFECTS

One of the most popular stands was a darkened tent constructed somewhere between Commodore and GVP. Inside the tent, visitors were treated to an amazing display of sight and sound as various monitors showed software effects which could have come perhaps from Jeff Minter on a good day.

In fact, it was a display of a suite of effects programs designed purely as toys. There is a star field generator, a vocoder, a spectrum analyser and a multimedia toy in the range, but some of the effects produced seemed to be of interest to quite a few passing professionals. The star-field generator is probably the best I have ever seen and the vocoder has sound processing functions in advance of many of the 'professional' tools currently on the market. Unfortunately, there are no PAL versions available yet but when there are you can be sure to hear about them first in CU.

ELECTRONIC ARTS

In a rather understated booth, Electronic Arts announced that they had updated the most popular paint and animation package. *Deluxe Paint* now moves to version *4.1* with a few small but important changes. First of all their is now greater support for scalable fonts like those included in Workbench 2.0.

The stencil function can now work over the complete range of an animation instead of having to be monotonously performed on each individual frame and brush morphing is now supported to full-screen size. There are a few other touches like a speed increase to some of the brush functions, but once again EA have missed out on the chance to include ARexx. It has got to the point where it becomes impossible to recommend *DPaint* as the best when it remains so hopelessly undeveloped in this way

Incidentally, EA were also showing off the excellent *John Madden's Football*, which I think was the only game on display at the whole show!



COMMODORE

The big C had a rather large stand but they weren't showing much. A lot of attention was being paid to the CDTV, which has failed in the USA even more spectacularly than it has here. Teams of Commodore staff were earnestly trying to convince people that it was an excellent device (which it is) and pointing out that you could now get the separate keyboard and mouse to turn the unit into a fully-fledged Amiga. Why the CDTV didn't come with these units as standard is a question none of them could adequately explain, though. The full range of Amigas were there (except the A600), including the A3000UX Unix platform and the A3500 tower system.

MAGAZINES

The two big Amiga magazines in North America were represented. Both Amiga World and Amazing Computing had stands at the show. Amiga World were showing their range of professional tuition videos which are now available in PAL VHS format. Amazing Computing were doing a brisk trade in subscriptions to their range of titles (they also produce a technical journal and a disk based title).

Interestingly, loads of visitors to the show stopped and asked me where I got my copy of CU from. Apparently, most Americans really rate European mags because they are better designed and are, apparently, more informative. 'When we see a review in a British magazine we know you have actually used the product,' one guy told me. There is a difference in magazine style on either side of the Atlantic which we seem to get the better of. So there you are, we may not have as many developers here, but you always get the best read.

SEMINARS

There were lots of seminars scheduled throughout the show, and many of them were interesting key note speeches from leading members of the Amiga community. A lot of companies used the seminar hall as a kind of free advertising space but there were instructive productivity lectures given by independent bodies such as the Boston Computer Society. Hit of the show has to be a marketing executive from Commodore who, when asked why CDTV sales were so low replied 'we don't know'.

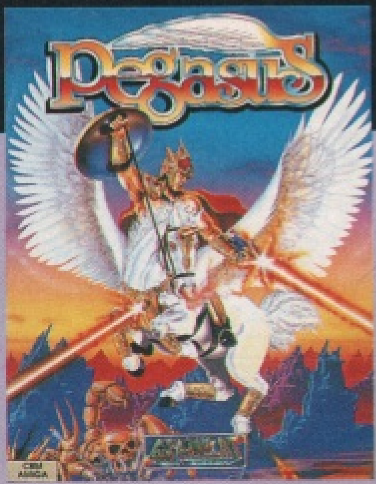


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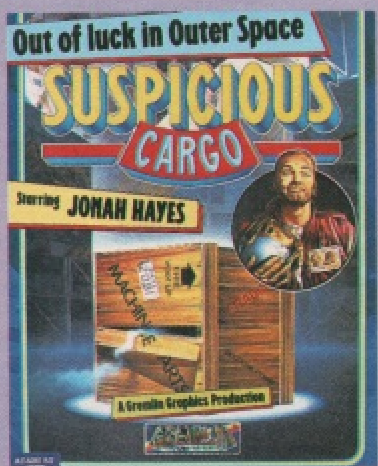
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Hero Quest
Video Kid
Lotus Esprit Turbo Challenge 2



Pegasus

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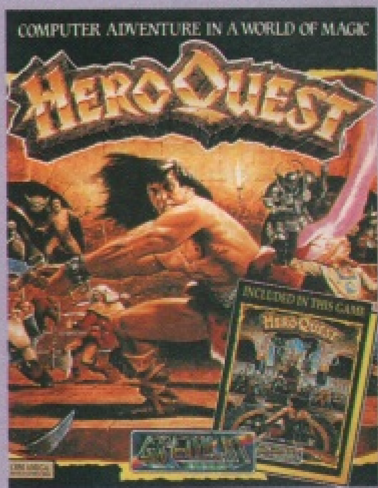
Suspicious Cargo



An interactive adven ture game, where our hero Jonah Hayes and his dodgy tramp freighter, travel through space with a valuable cargo - but one that's alive!

Hero Quest

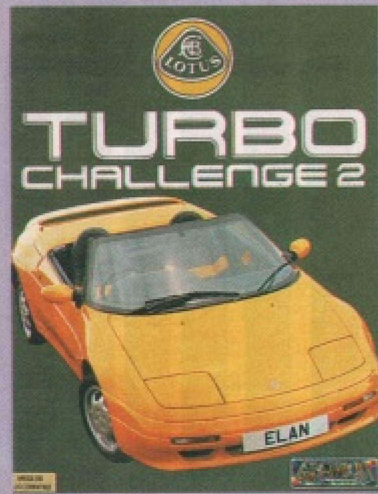
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realm of the evil wizard Morcar. But beware, the unlit tunnels hold many dangers!

Lotus Esprit Turbo Challenge 2

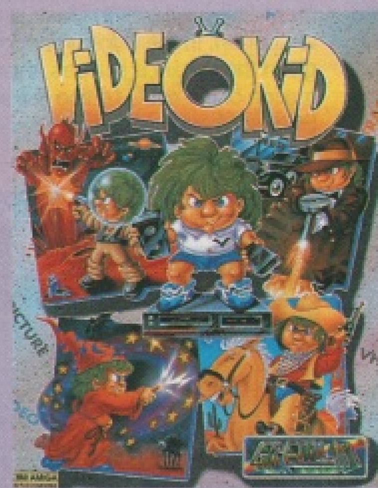
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Welcome to CU AMIGA's coverdisk pages. Once again, our disks feature the ultimate in utilities and games, with our star attraction being GB Route – the perfect guide to getting from A to B. In addition, games fans are equally well catered for, with a selection of full games awaiting your attention.

34

COVERDISKS

GB ROUTE

LOADING DISK 34

Put the disk into the Amiga's internal drive and switch the machine on. A bank of icons will appear after a time. Simply double click on the required icon with the mouse, and it will load. To install *GB Route* on another disk or a hard drive GBR1.dat and GBR2.dat must be in the same directory as the main programme *GB Route*. It requires the 'diskfont.library' if you wish to print out anything, as well as the 'printer.device', *GB Route* uses its own font – GB Route.font. Copy both the *GB Route* directory and the GB Route.font file from the supplied disk to your fonts: directory. You will need to use the CLI or a directory utility to copy these files. The *GB Route* font is optional – if you use a television it might be preferable not to install the font. To start *GB Route* from CLI you must make your current directory the directory it's in. Use the AmigaDos cd Command.

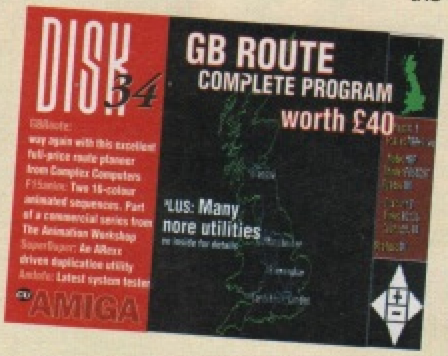
ROAD TO NOWHERE

GB Route is the Amiga equivalent to an atlas, and can save the user both time and money when preparing lengthy car journeys. In addition, it also allows the user to cost their journey and the price of petrol can be updated as prices rise – very handy! *GB Route* will run on any Amiga, but you must have at least 400k of free memory. The speed of the program is all down to *GB* loading straight into memory, negating the need for further accessing, and this also makes it perfect for people without a hard drive.

Once the program has loaded, an outline of the British Isles will be displayed in the Map window. To the right of this is the Control window containing, at the top, a small map of the British Isles, and below it is an information partition. Additionally, to the bottom right of the screen are the gadget controls needed to pan around the map.

ENTERING ROUTES

Select 'NEW' from the Route Menu or hold down the right Amiga key and press 'N'. The input window should appear. As an example, enter Manchester in the From: box. Press the return key to confirm the choice (you must always press return after entering data). Now enter the destination (we'll use London) in the To: window. When you have finished, click on the GO! icon and keep an eye on the status display in the Control window. Close the Input window by clicking on the close gadget, and a blue line will be shown running across the map. This indicates the fastest route from Manchester to London. In the Control window you will also be given the distance in miles, the time taken and an estimation of the cost. To find the shortest route, select Shortest from the Route menu or hold down the right Amiga key and 'S'. For a detailed display, repeat the procedure but select Display or 'D'.



THE INPUT WINDOW

The Via gadgets are optional places you may want to pass through on your way to your destination. These must be entered in sequence – i.e. Via 1, Via 2, etc. The 'A' road average speed gadget will accept values from 5 to 99mph. The default is 40 mph, but the Motorway average speed gadget accepts settings from 10 to 99 mph – the default is 70 mph, though. The departure time is based on the 24 hour clock, with the default time initially set as midnight (00:00). The cost per mile can be set anywhere between 1 and 99 pence.

THE DISPLAY WINDOW

Activated by holding down the right Amiga key and pressing 'D', the display window provides additional information which changes every time you would be expected to change onto a different road (except for places defined by 'Via's'). If the route is longer than the height of the Display window, the proportional gadget on the right, or the two arrow gadgets at the top right, can be used to scroll through the chosen route.

THE CONTROL WINDOW

The control window is divided into three areas. At the top is a small map of the British Isles showing which area is currently shown within the Map window. This is outlined in red, except when the magnification is set at X 1.

Other information can be gleaned from below the map.

Mag: displays the current magnification.

Scale: shows the approximate scale of the map in the map window.

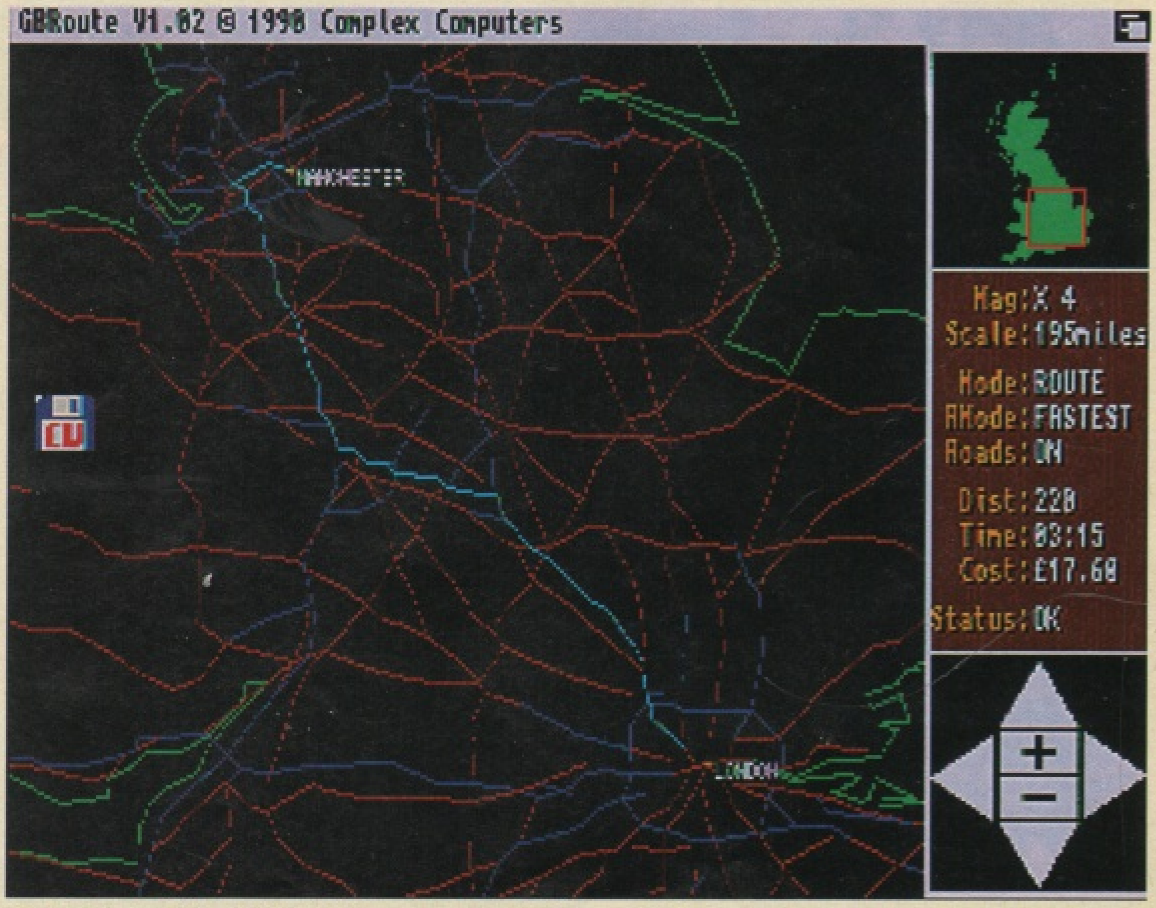
Mode: Map or Route.

RMode: Route mode, Fastest or Shortest.

Roads: Non-route roads, On or Off.

Dist: The total distance for the current route.

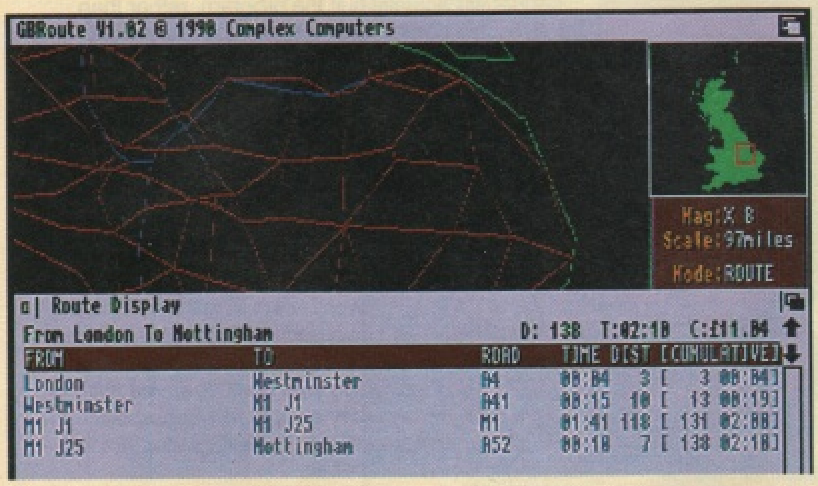
Time: The total time for the current route.



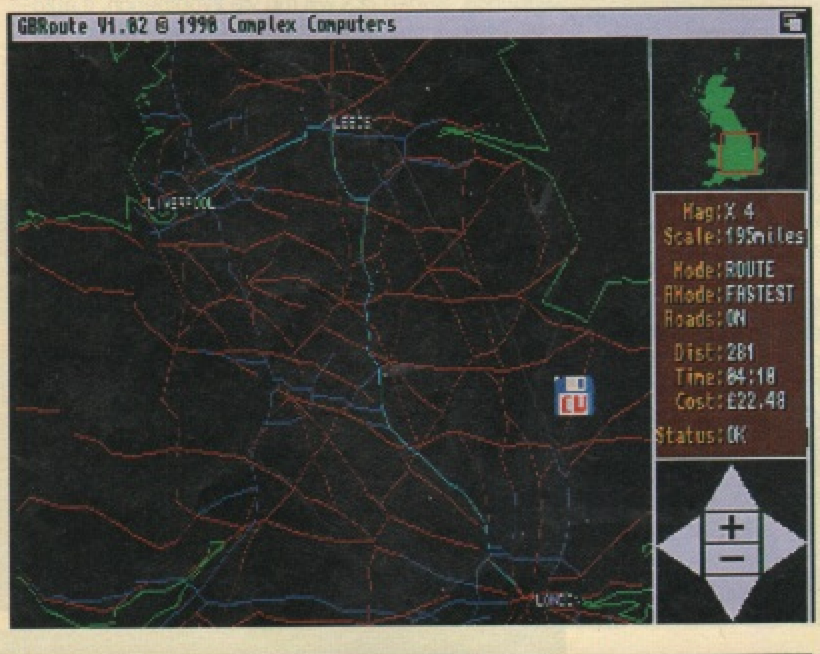
GB Route displays a full map of Britain, and routes can be created to virtually anywhere. In addition, extra diversions can be added, and the route will then be replotted to take these into consideration. It also tells you how much the petrol will cost!



A full complement of both major and minor roads are all available, and even some of the most obscure little hamlets you're ever likely to pass through are included.



Having entered your speed and route, *GB* will then try to estimate the length of time your journey will take. This, of course, depends on whether you take a motorway-based route, and how fast you intend to drive. About the only thing it doesn't take into condition, is the weather – but you can't have everything!



ROUTE MENU

NEW Opens the Input window to allow the entry of new or amended routes.

SHORTEST If a route has been calculated, selecting this option will show the shortest possible route and revert to Route mode.

FASTEST If a route has been calculated, selecting this option will show the fastest possible route and revert to Route mode.

DISPLAY Opens the display window, which shows detailed information of the route.

THE MENU OPTIONS

PROJECT MENU

Save Prefs

Saves your preferences – route mode (map or route), speed (fastest or shortest), roads (on or off), the average 'A' road speed, the average motorway speed, and the cost per mile – to a file in your S: directory called GB Route.prefs. This allows you to customise *GB Route*to reboot using your saved configuration.

Print Route

The present route will be printed. The printer system configuration is for an Epson 9-in compatible. If your printer is not served by this, copy your printer driver into the devs/printers directory and use the Preferences program (on your Workbench disk) to alter the settings.

Print Map

Dumps the contents of the Map window to a printer. If you use a black and white printer and value your ribbons, use the negative image setting.

Routes Mode/Map Mode

Toggles the mode *GB Route* will display in the Map window. It can be particularly useful to determine which towns or cities are near to your route.

Roads On/Roads Off

Toggles the non-route roads on and off. The map window will update considerably faster if roads are turned off. You may find it easier to turn the roads off while zooming in or out, or scrolling around the map, and then turning them back on when you have found the area you wish to examine.

Hints and tips

If you want a route that avoids motorways, set the motorway speed to 10 mph and the 'A' road speed to 99 mph.

The average speeds of both 'A' roads and motorways can have a large effect on which route *GB Route* selects. Altering these so that the difference between them increases or decreases can often result in possible alternative routes.

Zooming in and out, and scrolling up, down, left and right is much faster with the non-route roads off.

Cost: Cost for the current route.
Status: Displays current working status. When calculating a route or updating the map the display will show WAIT.

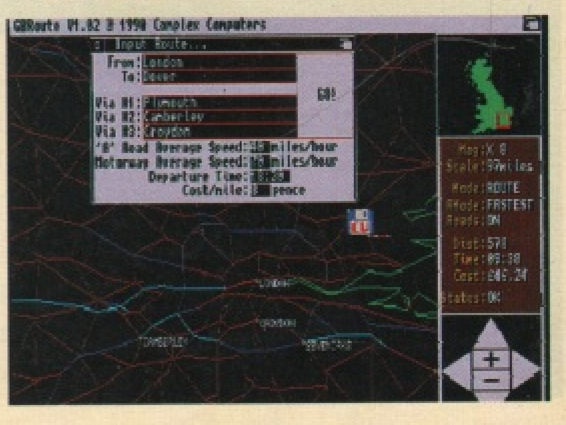
Finally, at the bottom of the Control window are a series of six gadgets which are used to zoom in or out of the map or scroll up, down, left or right.

THE MAP WINDOW

This shows a representation of the many roads around the country. The coast is marked in green, with motorways in dark blue and 'A' roads in dark red. In Map mode, places are represented by a small yellow circle with the place name to the right in white text. The number of roads and places depicted on the map depends on the magnification being used. In Route mode, if a route has been calculated, the 'A' roads are highlighted in bright red, motorways in bright blue, and ferry routes in yellow. The starting point, destination and other selected stops will be shown as well as other places along the route, depending on the magnification used.



GB Route also allows the user to scroll along the route and, depending on the accuracy level chosen, is very fast.

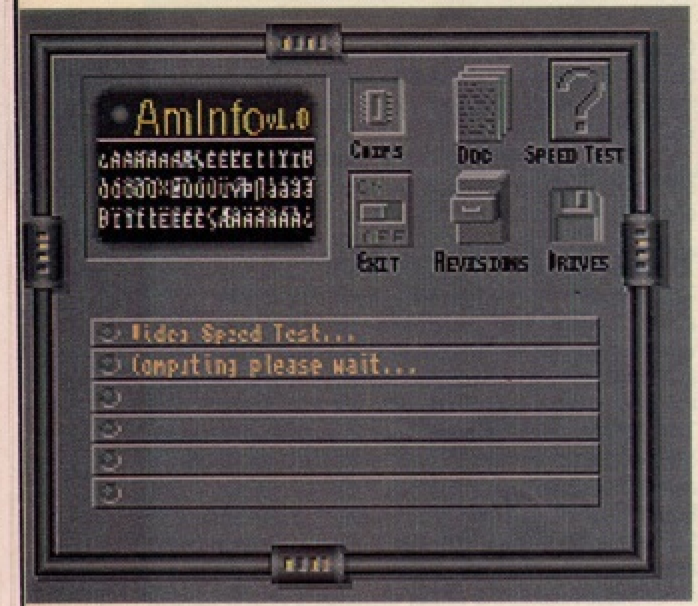


AMINFO

Aminfo is a small utility which will tell you the current state of your Amiga. It checks the processor you are using, the kickstart ROMs, and even displays the revisions of all the libraries currently running. To use *Aminfo*, simply click on the *Aminfo* icon. A small window will appear with gadgets along the top. Each of the gadgets performs a different test, with the selected information appearing in the box below.

One of the boxes will also display the documentation for this file, including the average speed ratings of some other home computers for you to compare with. If you are running on a 1.3 or 1.2 machine or you have an accelerator card attached you must run Setpatch prior to using this program in order to get accurate information.

Full documentation is in the file provided on the disk, including the Address of the programmer should you like to write and thank him.

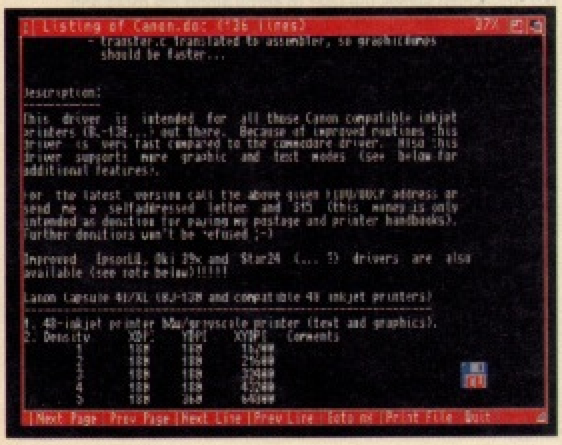


CANON DRIVER

On this month's disk are two printer drivers for the Canon BJ130 and compatible printers. There is one version for 68000/010 machines, and another for the 68020/030 processors.

To use these drivers, copy them into the devs/printers directory of your workbench disk and select them by running the preferences program. To copy the files either enter the CLI from workbench and use the copy command or use a file management system like *SID* or *Disk Master* which we gave away on the disk a few months back.

The drivers promise a speed improvement and greater support for text and graphics modes. There are faster drivers available for EpsonLq, Oki and Star24 printers from the same source. For more information, check out the address in the documentation on the disk.

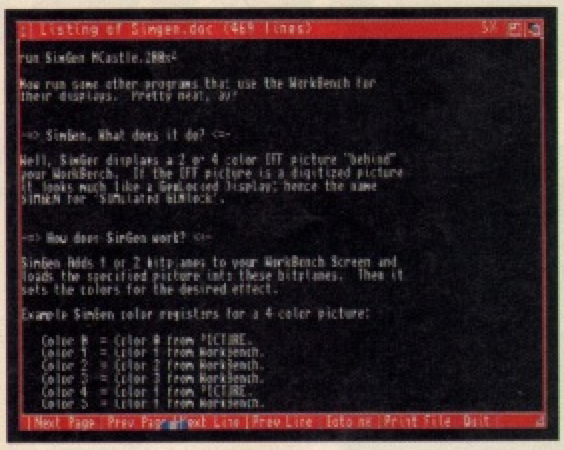


SIMGEN

Simgen is a novel program which turns the backdrop of the Workbench screen into a two or four-colour picture. It works by adding bitplanes into the workbench screen and uses these to display the picture without interfering with the workbench or any programs running on it.

You can run *Simgen* from workbench or the CLI. The CLI option also incorporates the opportunity to specify your own filename. Any IFF file can be used as long as it contains two or four colours. Some examples are included on this disk in the Art directory.

To quit from *Simgen*, either send a break to the process (using the status and break commands from the CLI) or double-click on the workbench icon – this will pop up a requestor which will give you the opportunity to halt the program. Extensive documentation is included on the disk.



SUPERLOCK

Jonathon Potter's *SuperLock* is a disk security program. *SuperLock* allows the user to disable any or all of your disk drives, hard drives and other storage devices. It also allows you to disable the keyboard and the mouse for added security.

SuperLock requires the arp.library to be present in the LIBS: directory. If you wish to use *SuperLock* from workbench, copy this library from the libs directory on this disk to the libs directory on your workbench disk. When you run *SuperLock*, a window appears, prompting for a password. If this is the first time you have run *SuperLock*, the password is 'password' (without the quotes and in lower-case; passwords ARE case-sensitive). All the other gadgets within the *SuperLock* window are initially inactive until the correct password is entered. Enter the password and press return.

PLOT DEVICES

SuperLock then lists all the devices present in the system. To select a device for locking, simply select it. Select it again to toggle locking off. If there are more than ten devices present in the system, you can use the slider gadget to move through them. The gadgets at the bottom of the window labelled Keyboard and Mouse allow you to enable or disable keyboard and mouse locking.

There are six gadgets at the right of the window. These are :

All..... selects all devices for locking.
None.... turns locking off for all devices.
Toggle.. reverses the state of all devices.
Lock.... enters locked mode.
Save.... saves the configuration.
Quit.... exits the program.

When you have selected what is to be locked, select the Lock gadget. The window disappears, and your choices will have been initialised. All the devices selected to be locked will become non-DOS disks, and cannot be read from or written to. If you chose to lock the keyboard, you will not be able to type anything. And if you chose to lock the mouse, the mouse will be moved to the bottom-right of the screen, and can't be moved.

To return to the *SuperLock* window from the locked state, press the Left Amiga, Right Amiga and L keys simultaneously (this works even if you chose to lock the keyboard). The *SuperLock* window will appear, and you will be asked to enter the password once again.

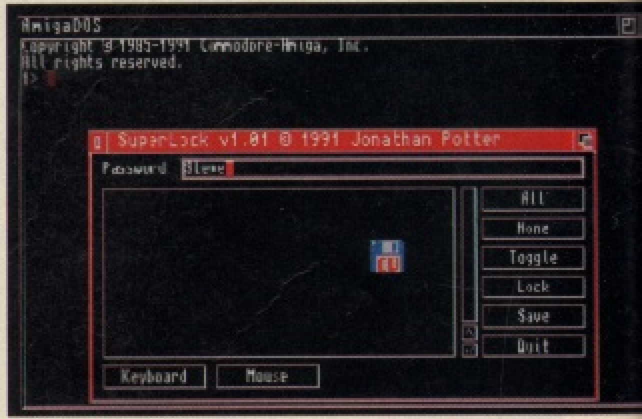
At this point, the keyboard and mouse will become unlocked if they were secured before. You now have 15 seconds to enter the correct password and press return. If you fail to do so, the *SuperLock* window will disappear and the keyboard and mouse will lock up again (if they were selected for locking). If you click the close gadget on the window without entering the password, *SuperLock* will return to the locked state. You cannot remove *SuperLock* from the system without the correct password. Entering the correct password causes all locked devices to be unlocked as well. At this point you may choose new devices for locking, or quit the program.

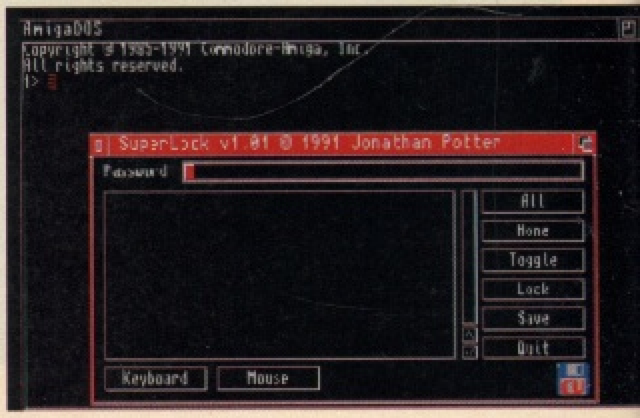
Once the password has been entered, the close gadget will actually quit the program, rather than returning to the locked state, as described above. *SuperLock* can save your choices to a file in the S: directory. If you click the Save gadget, a file will be created called SuperLock.cfg. This contains the password (in encrypted form), the names of all the devices you have selected for locking, and the locked state of the keyboard and mouse.

WHAT'S THE PASSWORD?

To change the password from the default 'password', simply edit the password string at the top of the window and click the Save gadget. From now on, your new password will be required to activate/deactivate *SuperLock*. If you have your choices saved (with the Save gadget), you may elect to run *SuperLock* from the startup-sequence with the -a flag – for instance:
SuperLock -a

The -a flag causes *SuperLock* to enter locked state immediately upon running; it does not need a password entered until you press the Amiga-Amiga-L sequence. *SuperLock* will run via Workbench. It automatically detaches itself from the CLI, so you do not need run or runback. *SuperLock* is freely distributable copyrighted software. If you use it, you should consider making a small donation to the author. The adddress is given in the documentation on the disk.

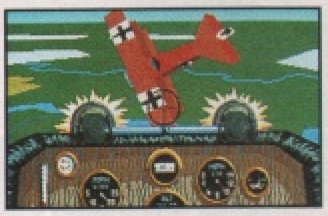


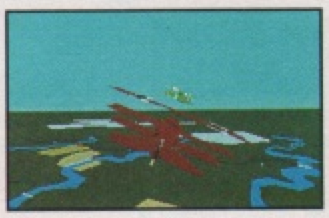


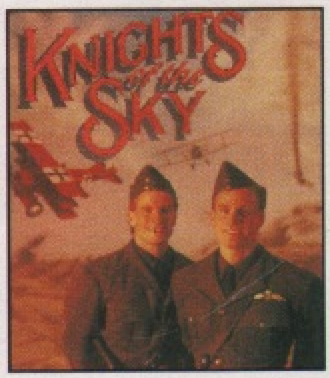
"I say chaps, the Red Baron's just bought it!"



"Thanks to Knights of the Sky"

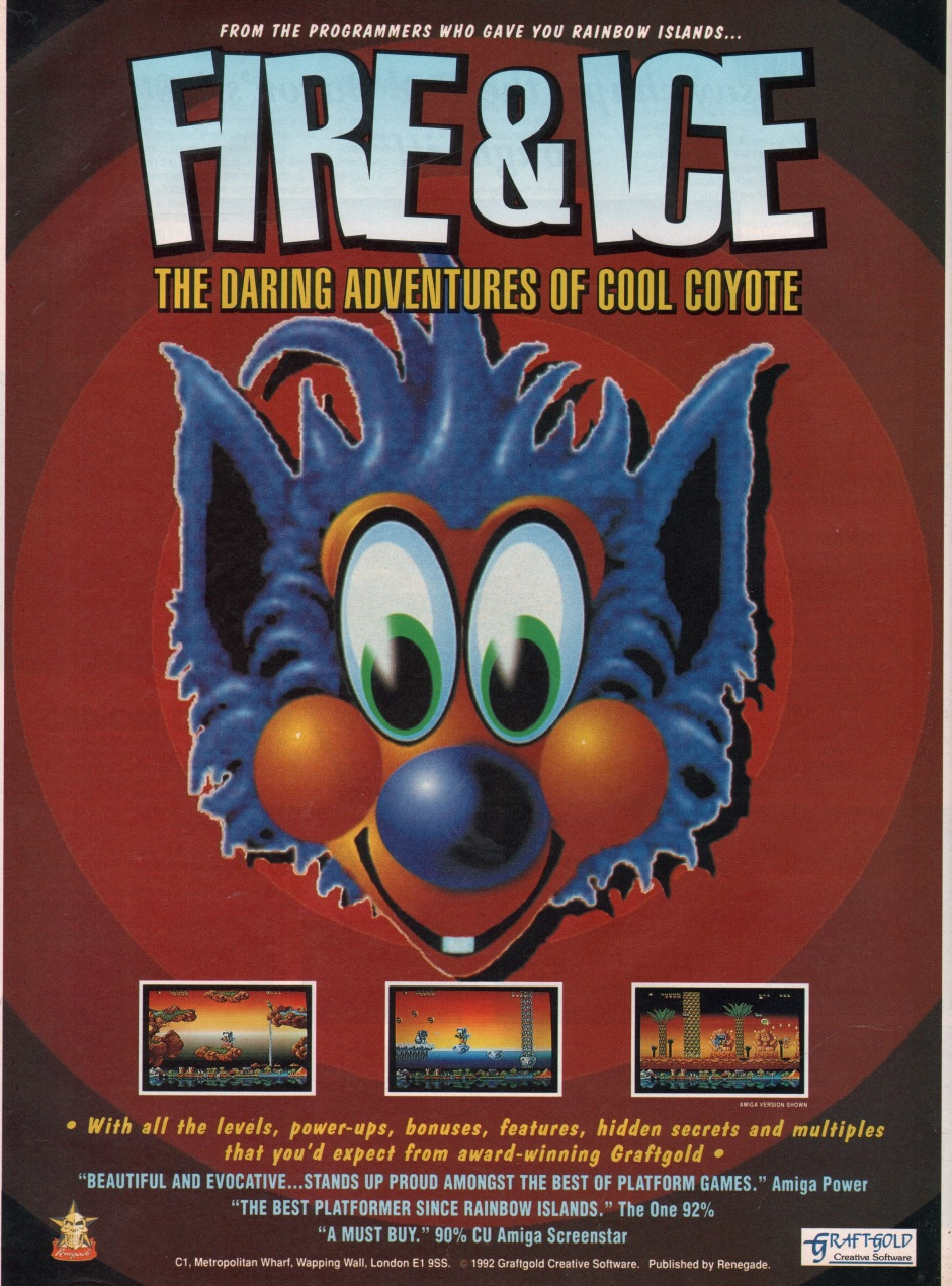






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SUPERDUPER

SuperDuper is a disk copier/formatter which tries to be to disk-handling what *Mostra* is to IFF displaying – a fast, compact, system-friendly tool which combines speed, features, and ease of user. By 'fast' we mean exactly what you're hoping – extremely fast. A disk is usually copied and verified in less than 100 seconds. Without opting to verify the disk, this drops to 69 seconds. A disk can also be buffered in RAM in less than 36 seconds, and making a verified copy takes 67 seconds. In addition, a non-verified copy takes less than 36 seconds. Adding another destination drive increases verified copy times by 34 seconds, but non-verified copy times are pretty much the same. To use *SuperDuper*, simply double-click on its icon. You will see five rows of gadgets. The first one has at most one gadget selected: it's the source. The second one allows you to select the destination drive(s). The other lines contain option and action gadgets.

All the gadgets can be activated via the mouse or the keyboard (using the underlined letter). The line of destination drives can be controlled by pressing SHIFT together with the underlined number. You can use Q or ESC to exit, instead of hitting the close gadget. Three of the string gadgets have underlined letters which activate them. Moreover, if you're running under 2.04, you can use TAB or SHIFT-TAB to pass from a string gadget to another one.

COPYING

To make your first copy, if you have two (or more) drives simply enter the drive names in the given lines (for the time being do not choose the same drive both as source and as destination). Then hit the GO gadget. After a while, the display will flash, a beep will be generated, and the copy will be finished. As each



cylinder is copied, the elapsed time indicator is updated. Note that another beep will be generated when the copy is almost finished, so you have time to prepare yourself.

If you have only one drive, select it both as source and as destination. Then hit the BUFFER gadget, thus creating a RAM buffer. Depending on the memory available, it will be a full 880K buffer or a partial buffer. In the latter case, real-time compression will let *SuperDuper* get the best out of it. Now put in the source disk and hit the READ gadget: the buffer will be filled with the contents of the disk. If the progress bar reaches its maximum length, then the whole disk has been buffered. Pull out the source disk, put in the destination, and hit the GO gadget. The buffer will be written to the disk. If only a part of the source disk was buffered, put it in again, buffer it again (note that now the progress bar starts where it stopped before) and write it again. This process must be repeated until the whole disk has been copied. It is safer to set the write protect tab on the source disk, in order to avoid the unpleasing side-effects of source/destination mismatches.

GADGETS

Some of *SuperDuper*'s other gadgets are explained below:

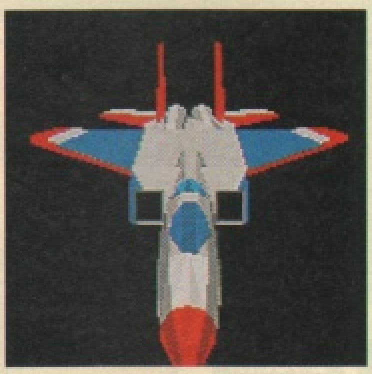
TALK Activates *SuperDuper*'s ability to give its status by voice. Currently only English is supported.

AUTO Activates automatic operation starting. *SuperDuper* will monitor disk insertion and ejection. When all destination(s) have been ejected and reinserted, a GO operation is started. If FORMAT is selected, the destination(s) are formatted. Else, if a buffer is selected, it is written to the destination(s). If neither formatting nor buffering is requested, *SuperDuper* will monitor the source, too, and will start a disk-to-disk(s) copy as soon as the source and all destination(s) have been ejected and re-inserted. WARNING: especially on one-drive-only systems, AUTO can be extremely dangerous. You'd better write-protect your source disks.

KILLSYS/RESTORE Closes the Workbench and voice, flushes the memory and opens a very small two-colour screen. Moreover, the window is of SIMPLE_REFRESH type rather than SMART_REFRESH. This way, the maximum amount of memory for your system is at your disposal (unfortunately, under 1.3 the window can be refreshed incorrectly because of an Intuition bug). If the Workbench can't be closed for some reason, a warning is issued (usually some application has a window opened on the Workbench screen). When you want to get back, hit the gadget again (this time it will be named RESTORE). This feature is very powerful if coupled with SDBootInstall and with the CLI option LOWMEM.

Besides being able to execute commands issued by an ARexx macro, *SuperDuper* is also able to start on one. This is the purpose of the ARexx gadget. The gadget is activated if the RexxSysLib.library is somewhere in your LIBS: directory; and if you have a file requester. *SuperDuper* can recognize and use the ASL file requester (under 2.0), the ARP file requester or the req.library file requester (the first available in this order will be used). You can start any number of macros at the same time (beware of wild interactions though).

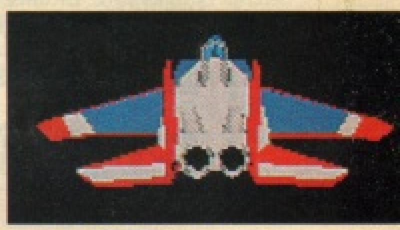
Full Documentation can be found on the disk.



F15 ANIMATIONS

You know, putting a coverdisk together can be a trying experience. We try to cram as many good utilities and games on to each disk as feasibly possible, and occasionally an error occurs.

Just as we were putting this disk to bed, and the last minute test versions came in, it appears that the jet animations wouldn't work. If you are trying to load the animations, the reason you can't is because our disk boffins forgot to decrunch the files or include a decruncher so that you could do it yourselves. However, all is not lost. Anyone who was wise enough to buy the last issue of CU Amiga will now be the proud owner of *Powerpacker 3.0* – a cruncher, no less.



Thus, loading this wonderful utility and clicking on the CLI, you can port the animation files on this month's disk and be able to decrunch them and view them in all their smooth glory. We're very sorry for any inconvenience this has caused, and, rest assured, the culprits responsible have been taken outside and shot (again). Well, what are you waiting for? Get decompacting...

GB ROUTE SPECIAL OFFER

If you'd like to obtain the full manual for *GB Route*, please send £2.95 (inclusive of P&P) to: Complex Computers, 2 The Arcade, Waterfoot, Rossendale, Lancashire, BB4 9AF. Please allow 28 days for delivery of goods.

IF YOUR DISK WON'T LOAD?

In the unlikely event of one of your CU disks not loading, remove all cartridges and peripherals and try again. If it still won't load, pop it in an envelope and send it to: CU DISK RETURNS, PC Wise, Merthyr Industrial Park, Pentreebach, Mid Glamorgan . CF48 4DR. They will then test the disk and send a replacement as soon as possible. Ring the PC Wise Helpline for any urgent problems. It's open between 10:30 and 12:30 during weekdays and can be reached on: (0443) 693233. Whilst CU Amiga makes every effort to check cover disks for all known viruses, we can accept no responsibility for possible damage caused by viruses which may have escaped our attention.

If games are your thing, you've come to the right place. Residing alongside a sneak taster of Gremlin's Sonic-inspired Zool, we have two more Gremlin games, Dux and Chrome. What's more these are complemented by the ultimate in cheat databases, and addiction galore in the shape of Drip...

35

COVERDISKS

LOADING DISK 35

Put the disk into the Amiga's internal drive, and switch the machine on. The disk will now auto-boot and will reveal a bank of icons revealing each demo's name. Simply double-click on the required icon with the mouse, and it will load. If, for any reason a demo fails to load, please remove any external cartridges, drives or printers which may be the cause of the problem. If the problem persists, please contact PC Wise on the phone number given elsewhere in these pages. Please do not ring the CU offices regarding disk problems, as there's nothing we can do. Sorry.

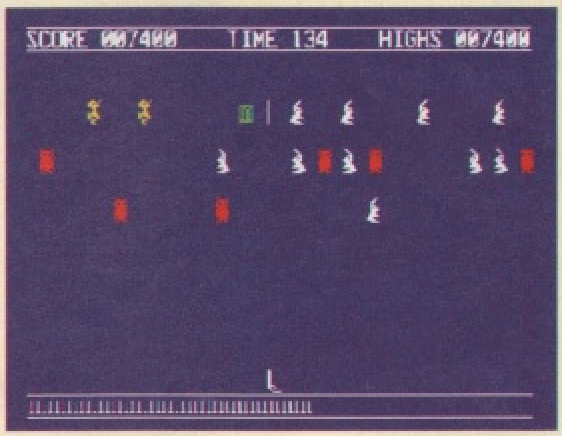
ZOOL – GREMLIN (1MB ONLY)

Gremlin's acrobatic Space Ninja hits CU's coverdisk in a small taster of what to expect. On loading, a static screen from the game's colourful sweet level is displayed, with Zool standing in the centre. As a thumping rock solo plays in the background, the strange little Mite starts to get fidgety and leaves the screen altogether. From here, he then scoots around the screen to give you an indication of his many powers. As he runs, jumps, and sticks to the walls, a succession of aliens appear allowing him to display his weaponry capabilities –



and blast them into molecular goo. He also pauses to use his magical powers AND play the air guitar – Bill and Ted have got nothing on this Dude...

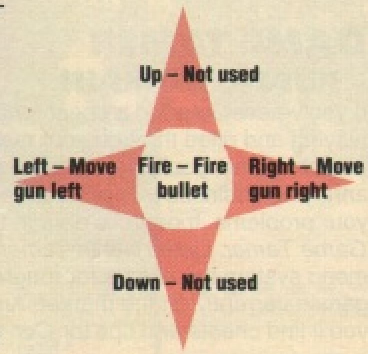
Our demo is here to whet your appetite for next month's disk which will feature a complete stage from the eight-way-scrolling game, and will further introduce you to what could be the Amiga's answer to *Sonic The Hedgehog*. Stay tuned.



DUX – GREMLIN

Back in the heady days of *Defender* and *Asteroids*, there was an alternative to the slam-bang space-bound action. Missed by most arcade-goers, *Carnival* was a 'sleeper' hit, which went on to prove extremely popular on early consoles, such as the Colecovision, Atari VCS and Intellivision. The premise of both *Dux* and *Carnival* is extremely simple: controlling a shooting gallery gun, the player is given a limited number of bullets with which to take out the bands of ducks, bunnies and other targets which are scrolled across the screen. Simple? Not really, as there is also a time-limit to contend with, and with every screen that is completed, your ammo supply is reduced slightly.

On loading, ignore the 'Game Over' message which is displayed and press fire to begin. *Dux* is controlled using a joystick, with the firebutton pulling the gun's trigger. Below your gun your remaining stock of bullets are shown, whilst directly above you in three or four bands are the all-important moving targets. In addition, among the many cutesy tin animals are smaller caches of extra bullets and targets which require two hits as opposed to one. A level is completed when all the targets are



removed and will then reveal the next batch. To quit, simply press the left mouse button.

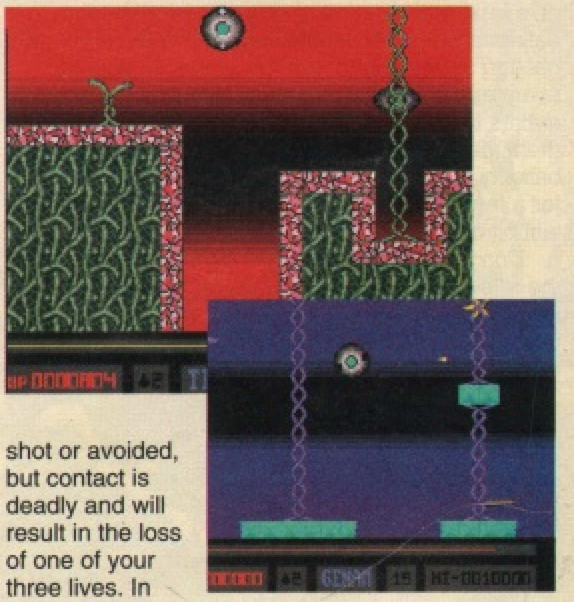


CHROME – GREMLIN

Reminiscent of Gremlin's ecological blaster, *Venus*, *Chrome* places the would-be hero in charge of a small rolling craft with extraordinary properties. It's the work of Gremlin's George Allan who, in the past, was responsible for the likes of *Switchblade II*, the forthcoming *Zool* and, oddly enough, *Venus*. A series of space platforms have been overrun by vicious aliens, who have left a series of patrolling guards to ensure that they aren't repossessed by do-gooder heroes such as yourself. It's vital that these twenty areas are recovered, so your ball-like ship has been charged with carrying out the mission.

As soon as the introductory screen has loaded, press the left mousebutton to enter the main game. *Chrome* is a one or two-player game, and is set across the aforementioned twenty stages. Each scrolls horizontally to follow the ball's movement and, as the game progresses, the level designs get rapidly more complex. The key to each stage lies in the oddly-marked tiles which are interspersed throughout the levels. These contain special properties which affect the way your ship moves – for instance, they can be used to leap on to previously inaccessible stages (see panel for more details).

Via the directional controls of the joystick, the craft can be made to roll from side to side and jump onto the lower ledges. Additionally, its limited supply of bullets can be fired by pressing fire and will then be released in the direction the ship is currently facing. The aliens start off as a rather dim bunch, and simply leap up or down or move from side to side on the many ledges. These are best

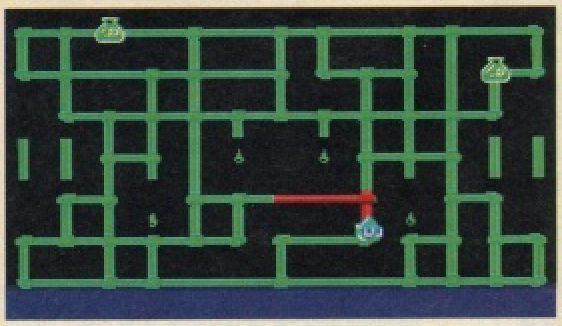


shot or avoided, but contact is deadly and will result in the loss of one of your three lives. In addition, beneath the main play area is a red time bar, and this, too, is reduced by lesser problems such as the well-hidden time-depleting tiles.

Not everything is stacked against you, though, and although your ship's armaments are limited in supply, bright yellow stars frequently appear and when collected add a much-needed boost to your bullet supply. However, as you work your way into the levels, they start to get rarer...

DRIP (1MB ONLY) – PUBLIC DOMAIN

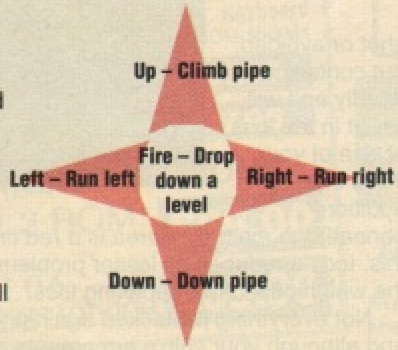
A variation on the old *Amidar* coin-op, *Drip* has been hailed by our very own Dan Slingsby as 'the best PD game ever'. Still, what does he know? Seriously, *Drip* is a fast-paced maze game which involves traversing a complex pipe network in an attempt to cover them in rust. The pipes are initially made up of one base colour, but as your character (the water drip of the title) moves up and down and across the network, he leaves a trail of reddish rust behind him. His only goal in life is to completely rust up the pipes, and on doing so he can proceed to the next batch to repeat the task. However, life's never that simple, and also patrolling the pipes are a series of creatures who don't take too kindly to having their metallic domain rusted over. Fuming



at your antics, they will chase you around the network in an attempt to touch and, subsequently, kill you. In addition to these tenacious beggars, natural hazards, such as acid spurts will also deplete your three lives – basically, if it moves – avoid it!

Luckily, the drip is a versatile little fellow and his liquid properties enable him to get out of harm's way by plopping down to a level below him. As the levels are completed, the pursuers get steadily more intelligent and faster, and will attempt to hem you in. In all, there are fifteen levels to complete, but at the end of these another, harder test, awaits where the water pipes must be switched off. This involves sorting out a series of sparking connections, but you can see for yourself when – and if – you get there. Also adding to the already-considerable larks are a series of coloured star-shaped balloons which randomly float up-screen. A yellow balloon allows you to turn the tables on your pursuers and chase them instead, whilst a red one makes the nasties rust the pipes as they pass over them, saving you valuable time. Finally, a flashing balloon will make your drip virtuallyindestructible for a few valuable seconds – useful for getting that last bit of pipe.

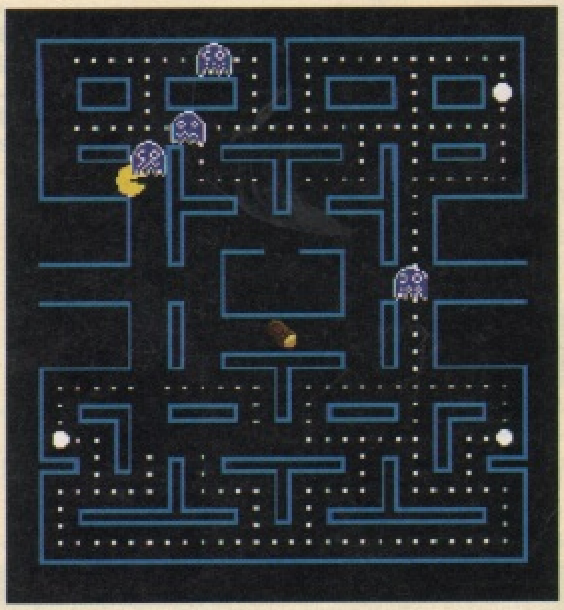
Drip is a one or two-player game, and pressing the relevant numeric key whilst on the title screen will select the number of players. In two-player mode, the players take it in turns to rust the pipes, and on losing a life, play switches to the second player. In addition, further info on the game can be summoned by pressing the I key, whilst P pauses it. A word of warning, though. Whilst *Drip* will run on accelerated machines, only people with extremely hot reflexes will be able to complete it, so it may be wise to turn off any boards first.



MOUTHMAN – PUBLIC DOMAIN

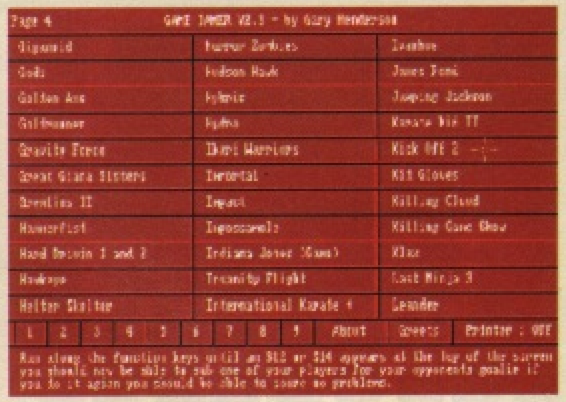
This hardly needs any introduction. Five years ago, you couldn't move without encountering some sort of *Pacman* merchandise. This little yellow pill-popper was everywhere: undies, TV-AM, Lunch Boxes – you name it, the little rotund hero was on it. *Mouthman* is a tribute to the original coin-op, and is probably the closest conversion the Amiga is ever likely to see. In case you have never encountered *Pacman* (and welcome to the real world, if this is the case), the game involves guiding the yellow hero through maze after maze of pills and ghosts. The basic aim is to clear the screen of the little white dots which punctuate the maze's corridors, whilst avoiding the attentions of Inky, Blinky, Pinky, and Clyde – the aforementioned ghosts. As our hero clears the screen (complete with the ever-present 'wakka-wakka' sound effects in the background) they will follow him and attempt to trap him in a corner – thus removing one of his three lives. However, located in the corner of each maze are the solutions to this problem – the infamous power pills. These pulsating pills allow *Mouthman* to turn the tables on his spectral enemies and chase them for bonus points. If *Mouthman* manages to catch a ghost, he is rewarded with 200 points for his trouble, which is doubled with every further ghosts caught. However, the effect of the pill is only temporary as soon as the ghosts start to revert to their normal colours, they are best avoided. Finally, further bonuses, in the shape of food goodies, also appear below the ghosts' den for further scoring opportunities.





GAME TAMER – PUBLIC DOMAIN

If you've ever needed a cheat for a game you're playing and rifled through your magazines in search of one, you'll know what a messy and annoying business this can be. The answer to all your problems, though, is here in the shape of *Game Tamer*. Listed within *Tamer*'s easy to use menu system are cheats for roughly 80% of all games currently on the market. Amongst others, you'll find cheats and tips for *Car-Vup, Kick Off II,*



Turrican II and *Z-Out*, and all are accessed with a click of the mouse.

On loading, the screen will display a series of boxes containing an alphabetical list of games. Simply click on the game name you require , and the solution will be displayed at the bottom of the screen. As there are so many cheats, they are scattered across roughly nine pages, but these can be flicked through using the numbered page icons below the inventory list. To exit the program, simply move the mouse pointer to the top-left of the screen, and hold down both mouse buttons.

CHROME TIPS

***Chrome*'s many platforms play host to all manner of weird tiles. These have a direct influence on your craft and the way it behaves. Here's a guide of what to expect...**

Normal, simply roll over it as normal.

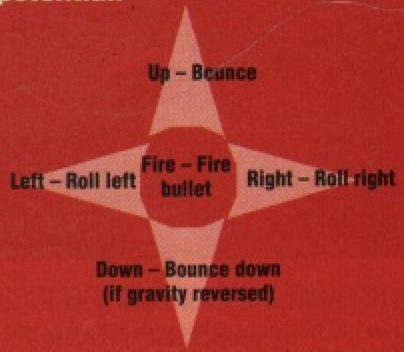
Attracts the metal of your craft and prevents you from jumping. Normally features a bouncing alien, too.

Affects Gravity. When touched, will effectively switch the game upside down, by allowing you to run across the ceiling until you reach another reversal tile.

Depletes your time-limit bar when touched.

Makes your craft bounce when you don't necessarily want to - normally into a patrolling nasty.

Increases your ship's jumping potential.




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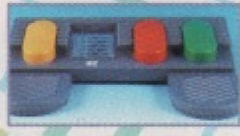




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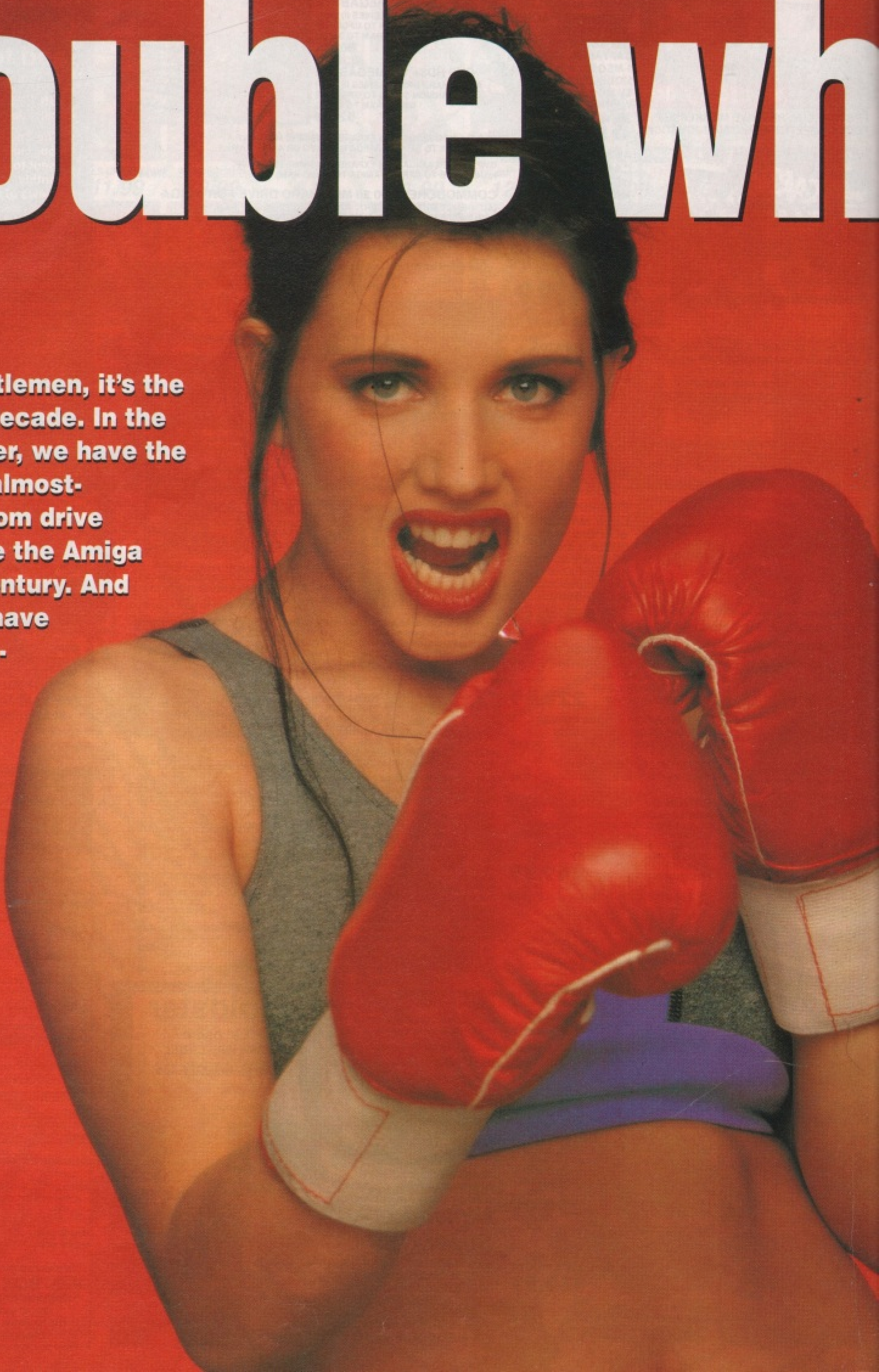
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commodore's
double wh

Ladies and Gentlemen, it's the contest of the decade. In the right-hand corner, we have the new A570, the almost-legendary CD-Rom drive destined to take the Amiga into the 21st Century. And on the left, we have the next generation Amiga computer, the A600. Let's have a clean fight and, seconds away...



...ammy

THE A570

Commodore's CD Rom drive is probably the most hyped Amiga peripheral to be developed in the last two years. Mat Broomfield takes a closer look to discover the facts behind the myths.



CD ROMDERFUL

When the CDTV was released last year, it was hailed as the forerunner of a new generation of home computer products. It's capable of loading computer software from compact disks which can hold over 600 megabytes of data. These disks can also hold ordinary music tracks which can be heard via the CDTV or any household CD player. Furthermore, the unit can handle CDG, a revolutionary format that lets you listen to CDs whilst watching accompanying graphics on your computer monitor.

Since then, sales have not gone as well as Commodore might have hoped, with the unit suffering from speculation about the add-on CD Rom drive (the A570), which could effectively turn any A500 into a CDTV at about half the cost.

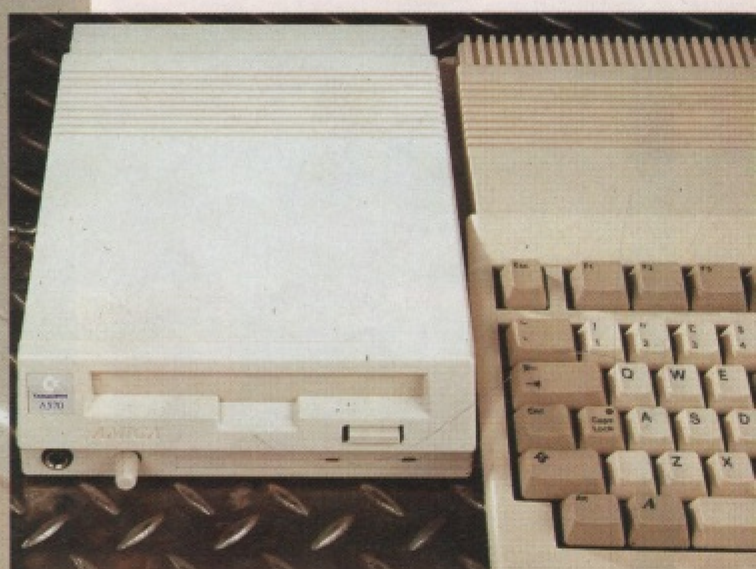
Now, at long last, it looks as if the CD Rom drive is on its way, with a release date pencilled in for the latter half of this year. CU Amiga has managed to acquire the latest pre-production machine so that we can bring you the results of some of the first hands-on experience in the world.

LET'S GET PHYSICAL

The CD Rom drive comes in a white glossy plastic case about the size and thickness of a decent hardback book (one by Stephen King, anyway!). Although it looks very slick, it doesn't match the A500 in either colour or texture. CDs are inserted at the front of the drive, via a flap-protected opening which essentially functions like an oversized floppy disk slot, complete with push-button ejection mechanism. Below the disk slot, there's a quarter inch headphone socket, power and CD read/play light, and a dual purpose volume knob and power switch. The right-hand side of the unit is dominated by the interface which plugs into the Amiga's expansion port. At the rear of the A570, there are stereo phono sockets for audio in and out, and the traditional square A500 power socket. This means that you'll now have two 'brick' power supplies to worry about.

Once the drive is plugged into the Amiga, and the power switched on, the A570 takes control of the Amiga's operating system, replacing the traditional insert disk screen with the static CDTV logo.

CDs are placed into a plastic shuttle ready to be played by the unit. This shuttle is actually a flip-top case which protects the delicate CDs, and locates them precisely within the player. You might think that ➤



The prototype shows the 'less is more' approach to the unit's design. A headphone jack and the volume knob are the only controls. However, despite the minimal decoration, once hooked up, the A570 does live up to its promise of turning the Amiga into a CDTV.



THE A570

CDs are traditionally very robust, and that's true when it applies to music, where one or even fifty missing bytes is barely audible. However, even a single missing byte can be enough to make an Amiga program unuseable, so the data CDs are far more susceptible to damage from scratches or rough treatment.

The drive automatically registers the shuttle when inserted, and boots whatever is on it. However, if you want to use ordinary floppy disks instead of CD software, simply insert a disk in the internal drive of the computer, and it reverts to A500 mode.

Current models of the A570 don't include a through-port, so unless you have a hard drive with one (or a stand alone drive that uses a SCSI connector), you won't be able to connect both drives simultaneously. Commodore have been giving out conflicting signals about the development of drives with a through-port, at one time claiming that all models would have one, whilst later decrying any knowledge of the likelihood. I think it's safe to assume that even if the first machines don't have through-ports, they will either be fitted as standard to later models, or will be available as an alternative release if the problem with noise levels can be sorted out.

MIX MASTER

As I mentioned earlier, the A570 is capable of playing normal CD audio tracks – in fact it produces sound quality which is better than that of most high street CD players. Better yet, it can mix CD audio with sound generated by the Amiga. The phono leads from the Amiga are plugged into the audio in sockets at the back of the drive, and a further set of leads then link the drive to your hi-fi or amplifier. Audio and Amiga data can be mixed on a single CD, and audio tracks can be triggered from within a software package.

This brings to life the concept of multi-media, combining graphics with CD quality sound tracks and similar effects.

One drawback of the CD ROM drive, is the fact that most CDTV titles require a minimum of 1Mb of Chip RAM to work. If you have an A500 Plus, this isn't a problem because they come with 1Mb as standard. However owners of 1.3 machines will have to perform a slight modification to their computers before they will be compatible. 1.2 owners are really out of luck, though, because the A570 is totally incompatible with it. This means that you'll finally have to get that 1.3 or 2.0 upgrade you've been thinking about getting all these years (complete with new Agnus chip)!

For those people with more demanding applications, an additional 2Mb memory card can be added to the drive, although it doesn't seem to be possible to connect both memory and a SCSI device simultaneously. There is a small plate to the rear of the unit, though, and it could be a possibility that this will be where such a port could go. Unfortunately, at the time of writing, we haven't been able to confirm whether this is true. Still, as soon as we know, we'll bring you a further update.



Phono sockets for Audio In and Audio Out are situated adjacent to the power supply socket. Unfortunately, the A570 uses another A500-style power supply which means that Amiga users have two bricks to contend with – presumably saving Commodore from having to design and produce a new one. The blank plate shown here could possibly become a SCSI port at some point, allowing the addition of external hard drives. However, this couldn't be confirmed at the time of going to press.



TARNISHED DREAMS

When Commodore first launched the CDTV, it was widely viewed as the greatest innovation since the Amiga itself, with the entire industry waxing lyrical about the exciting prospects that the machine hailed. Those prospects are still as viable as they ever were, but thanks to Commodore's absurd marketing of the machine, it has fallen far short of everyone's hopes. It was six months before Commodore allowed it to be described as a computer, and they even refused to allow retailers to display it in close proximity of anything computer-related. To make matters worse, the unit was seriously overpriced, and Commodore had targetted totally the wrong audience for its UK advertising campaign, preferring to appeal to the education and Yuppie family sector, as opposed to the existing base of one million loyal Amiga owners.

At the moment, best estimates put the current UK CDTV user base somewhere between ten and fifteen thousand users. Many software publishers won't develop for such a (relatively) low user base, and as a consequence, the machine has very little worthwhile software available for it. The promised extras for the machine (such as the keyboard, extra drive and dedicated monitor), have been late in coming, if at all.

The A570 could be the lifeline the CDTV needs, as surveys have revealed the potential user base to be in the region of 500,000 users.

Fortunately, most CDTV software is compatible with the A570, although there are several titles that apparently don't work.

POSSIBILITIES UNLIMITED

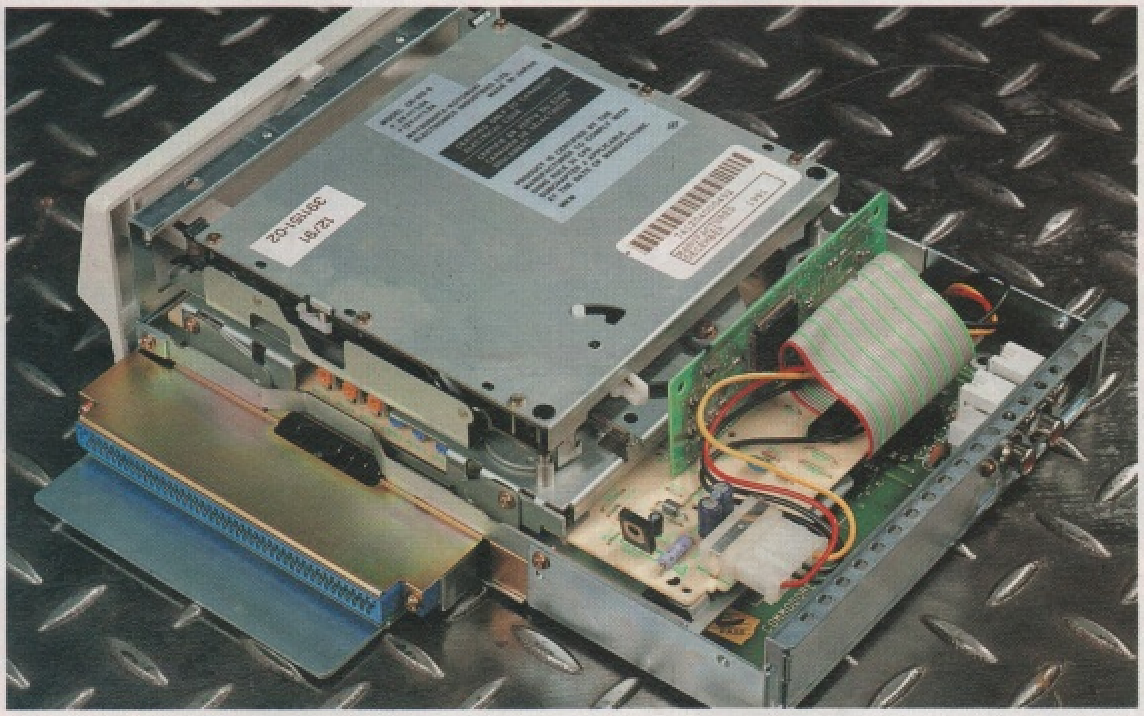
With almost 600Mb on a CD, the A570 opens up the way for large scale software publications which would have been impractical using floppy disks. Games such as *Heart Of China* and *Dragon's Lair*, which required nine and five disks respectively, would be small fry compared to the possibilities offered by a system capable of storing over six hundred disks worth of data on a single CD.

It's not just games that would benefit either; how about a desk-top publishing system that comes on a single disk yet contains over a hundred scalable fonts, and hundreds of structured clip art images. Sound interesting?

When you talk about professional use, another quite important omission between the A570 and the CDTV becomes apparent. The CDTV has a special video slot that lets you connect a Commodore Advanced Video Mode card which offers pseudo 24-bit graphics capabilities. This card opens the way to TV-quality animation, which makes it all the sadder that the A570 doesn't include this useful slot! You can achieve the same results using the DCTV, but this is a very expensive alternative.

CONCLUSION

The A570 is the answer to many Amiga owners prayers, offering high capacity storage and faster than floppy disk access times. The current software is quite uninspiring, but as sales of the unit are combined with those of the CDTV, we can hopefully expect to see software developers start to take both machines a bit more seriously. It's a real pity that current machines don't have a through-port, but as mentioned, our version *is* only a preproduction model so perhaps that omission will be rectified in the version that hits the shelves. Sources at Commodore tell us that the A570 will retail for £299, and that supplies are at this moment on 'a slow boat coming over from America'. Whether that's an accurate picture, only time will tell, but when stocks finally arrive you can put my name at the top of the list for one. It's a neat little unit which lives up to Commodore's promises. ➢



Surface mount technology makes for compact and reliable design. Everything is arranged neatly, and a metal casing ensures that any DIY repairmen should be deterred – it's certainly neater than the innards of the CDTV unit. Also visible to the rear of the unit is the famed cartridge port, where the addition of extra peripherals, such as scanners and the like, should be possible. Even so, though, its addition doesn't make up for the loss of the edge connector.



FRED FISH COLLECTION

There are precious few serious CDTV titles available at the moment, but one such program stands out from the rest. Mat Broomfield takes a look at Hyper Media Concepts' *Fred Fish Collection*.

SOMETHING FISHY

Nintendo owners have Mario, Sega fans have Sonic and Amigaphiles had the Juggler, but what is there for CDTV owners? Fred Fish of course! If you're wondering what I'm talking about, I'm referring to software titles which are so good, that they justify buying an entire machine just to use them.

THE ULTIMATE COLLECTION

The Fred Fish Public Domain library is arguably the greatest single collection of free and shareware programs available anywhere in the world. To date it consists of over 3000 programs spread across more than 600 floppy disks, unless of course, you own a CDTV or Commodore's new CD ROM drive, the A570. For those lucky few, the entire collection is available on a single mind-blowing compact disk.

As the programs were originally designed to run on the Amiga, most of them will require you to either own the optional CDTV keyboard or network the CDTV to an ordinary Amiga. To this end, the disk contains a copy of the excellent *Parnet* program which lets you link up an Amiga and then treats the CDTV as an extra terminal to and from which information can be exchanged.

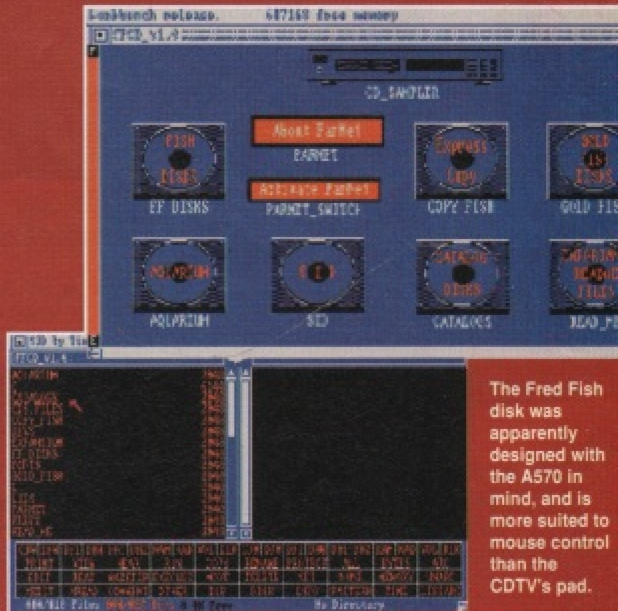
Also on the disk is the *Fish Aquarium*, a virtually essential browser program that lets you look through the various Fish titles without having to first load each one.

Because many of the programs on the disk are archived (stored in special compressed format), they will need to be unarced via a normal Amiga. This is yet another example which leads me to think that although the Fred Fish CD is CDTV compatible, it was actually designed with the A570 in mind, as it simply plugs into the unit, and acts much like a high capacity read-only hard drive.

One annoying fact is the way that Hypermedia have seen fit to remove all of the various program's icons, forcing you to create your own, or launch everything from CLI.

CONCLUSION

When you consider that it would cost between 500 and 1000 pounds to buy this collection on floppy disks, it really is cheaper to buy a CDTV and the CD. Although the Fish collection is largely utility based, there are also many games on the disk, as well as music and graphics demos. Whatever your fancy, this disk is like buying a lifetime's software collection in a single hit!



The Fred Fish disk was apparently designed with the A570 in mind, and is more suited to mouse control than the CDTV's pad.



SLOW BUT SURE

It's taken years for CD-ROM to hit the streets. Rik Haynes reveals the history of the media that would be king...

IN THE BEGINNING

First conceived in the 1970s, the compact disc continues to find its way into the lives of people at an amazing rate. We've come a long way since Philips introduced the original CD Audio player to consumers ten years ago.

All digital disc products share a common theme. Offering perfect sound reproduction and no loss of quality after repeated playing, they use a laser beam to read and decode information off one side of a rotating silver disc. Compact Disc Read-Only Memory (CD-ROM) is basically a mass storage peripheral for personal computers and video game consoles. Identical in size and appearance to an ordinary CD audio disc, the CD-ROM version can also hold graphics and program code. The advantages are there for everyone to see and hear. A single disc holds about 600 megabytes of data. That's the equivalent of roughly 600 floppy disks – or, in more practical terms – 150,000 pages of text. On top of this, discs are extremely cheap to make. So, why hasn't everyone got one?

BACK TO THE FUTURE

'CD-ROM is the platform that cried wolf,' suggests a spokesperson for Lucasfilm Games, 'Back in the dark ages of 1986, many believed CD-ROM was just around the corner. Eventually, software publishers realised they were the bride standing at the altar with no sign of the groom. No one was buying CD-ROM systems.' There is another problem: it can only soak up data at a comparatively slow rate of 150 kilobytes per second. That means the speed of the average CD-ROM player lies between a floppy disk drive and hard disk. Thus, tricks must be used to make the transfer of all those lovely graphics and sounds go faster and more smoothly. It's a question of compression and compromise. There's no such thing as the all-singing, all-dancing CD-ROM device that is able to do everything at the same time… yet.

With manufacturers taking CD-ROM in many different directions at the same time, it's hard for publishers and consumers to decide upon the right machine. If only there was a worldwide standard for CD-ROM like VHS, then we could confidently run every CD software title on any player. It's got to happen sooner or later.

THAT'S INTERTAINMENT While Commodore had a headstart over the competition, Philips has recently started the onslaught of Compact Disc Interactive. Similar in concept to the CDTV, the idea is to bring a wide variety of media together on a single 5-inch compact disc. It's being treated more like another box of everyday electronics, like the video recorder or TV, rather than a fancy computer. A fairly equal amount of hype and hope is being thrown behind CDi. In fact, the future of the giant Dutch company could depend on the success or failure of its new baby. That's why bold statements like 'CDi has the potential to change the way information and entertainment is brought into the home' and 'the potential is only limited by the imagination of the world's best creative minds' can be heard in stores around the world today. With some sexy software titles and the respected Philips name behind it, smart money is currently on the CDi range of product. Nevertheless, it will be some time before the whole idea of interactive and multimedia really takes a hold of a general public more interested in mortgage repayments and the summer Olympics.



Images of a CD-based future. The question on everyone's lips, though, is when, and how much and will the A570 be able to counter Philip's CDi unit?

DREAM TALKING

With customary unapologetic vigour, Rik Haynes takes a peep into the rocky future of CD-ROM gaming on the Amiga...

GAME ON

If the best game currently released on CDTV is *SimCity*, a slightly improved update of the old favourite, why should Amiga owners bother with the new A570 compact disc drive? Commodore must be asking the same question. This could, of course, go a long way to explain the mysterious delays which have plagued the introduction of its expensive device.

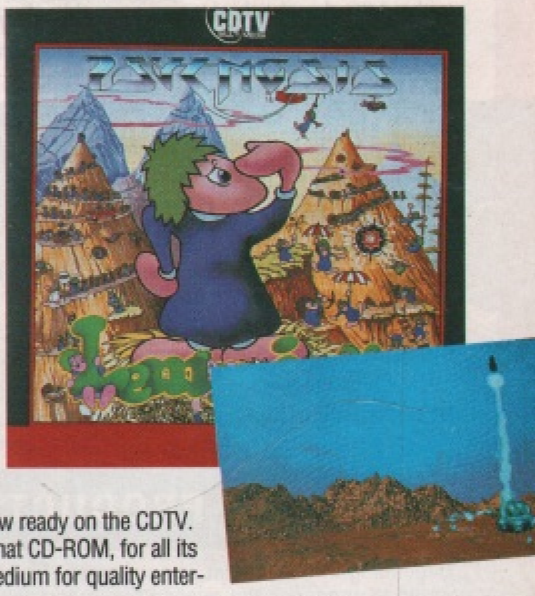
So far, the majority of product released on the CDTV is tragic. Stuff like *Battlestorm* and *Barney Bear Goes to School* are unacceptably poor. No wonder this multimedia machine hasn't taken off despite an extensive TV and newspaper advertising campaign before Christmas. One look at *Classic Board Games* is enough to dampen anybody's enthusiasm for the thing.

TAKING SOME RISKS

Thankfully, there are a few developers and publishers willing to take a risk. The bods at Psygnosis have been showing off the impressive *Planetside* for ages and seem ready to run with their first game using the techniques pioneered in this well-received software demonstration. Bullfrog and Ocean both have secret projects on the boil, while Virgin Games and Trilobyte may convert *Guest* onto every possible platform to recoup the horrendous development costs incurred by this ambitious project. Described as a hypermovie, where the player can alter the direction and pace of the plot, *Guest* features stunning animation of a mansion filled with mischievous ghosts.

Lucasfilm Games has taken a more obvious approach by concentrating on the improved audio capabilities of CD. This highly respected publisher has been supporting CD-ROM for several years. *Indiana Jones and the Last Crusade*, *Loom* and *Secret of Monkey Island* are now ready on the CDTV. A spokesperson adds: 'We are confident that CD-ROM, for all its current limitations, is the best available medium for quality entertainment software.'

It's highly probable that many of the breakthroughs in CD-ROM technology will emerge from Japan. Makers of video game consoles need an edge to keep their profits coming in. Designers in the land of the sun also believe they can use the huge potential of this storage medium to nudge the odds in their favour. A considerable amount of resources and raw talent is being thrown at the challenge and this investment should start paying off within the next twelve months or so.



HOPE IN SIGHT **Instead of straight shovelware, a term used to describe the endless compilations and re-releases on CD-ROM, Lucasfilm Games and others are taking full advantage of each system by adding new artwork and soundtracks. *Loom* wasn't simply dumped onto the CDTV, the team decided to employ the voices of actors to make it sound like a film. Plus, additional animation was commissioned to emphasise the body language of characters inside this popular graphic adventure. 'Speech is a giant step toward providing a compelling realistic experience,' believes Kelly Flock of Lucasfilm Games.**

MEMORY EXPANSION

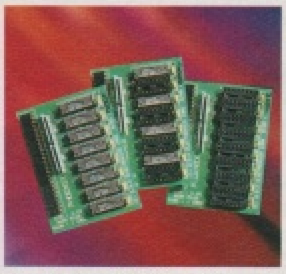
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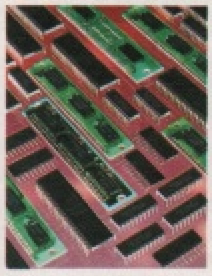
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As the veil lifted on the latest Amiga at the European Computer Trade Show, CU Amiga was there to find out if good things really do come in small packages...

THE A600

HARDLY NOVEL

The A600 is not, as some would claim, an astonishing breakthrough in home computer technology. It is not innovative – if it were a novel it would not be short-listed for the Booker prize. Having said that, though, there are quite a few differences to the everyday Amiga we have come to know.

The most immediate difference is in its appearance which is radically different from that of the A500. The numeric keypad has been lopped off, and the cursor, help and delete keys have been compressed and moved, giving the unit a portable feel. In fact, the A600 is only four fifths as long and three quarters as deep as its older sister, but remarkably it actually feels every ounce as heavy. Commodore have obviously crammed a lot into that diminutive case!

The internal implications of this size reduction are more interesting. The A600 still features a 3.5 inch 880K floppy drive on the rear right-hand side, but the actual unit has been changed for a slimmer version and is set at a more jaunty angle which parallels the up-slanted case. The circuit board itself includes more economies of space.

As part of their efforts to keep costs down, Commodore are constantly working on ways to simplify and reduce the size of the internal circuitry of their various computers. One major way that they've achieved this, is via Surface Mount Technology (or SMT), which lends itself well to mass manufacturing techniques. Experience gained on the A500 has paid dividends in the creation of the A600, which uses this technology almost exclusively. Not only does it work out cheaper (in the long run) but also has bonuses in terms of reduced space and greater reliability. The only chip on the whole board which is socketed is the V2.05 ROM. Obviously, this could make things a bit unpleasant for owners if a further update to the chip set is made in the next couple of years – you won't be able to just whip out your old Paula and replace it. On the positive side, this procedure will eliminate many of the teething troubles associated with new machines. SMT allows for more rigorous quality control at the factory and also eliminates heat expansion problems associated with many of the hard-working devices.

TOTAL RECALL

Another space saving effort is the organisation of the on-board memory. The A600 comes with 1Mb as standard, yet only uses two DRAM chips to provide it. That's right – the latest in 256K x 16 bit Dynamic Ram packages can be yours. There's also space for a trapdoor expansion, and the computer can be expanded up to a full two megs. This is about the only up-to-the-minute technology involved in the A600, but it's an important one. Despite the low power usage of these chips, Commodore have opted to keep their brick-like power supply. Worse still, the machine doesn't have an on/off switch built into its casing, so you'll have to reach over and 'kick the brick'. As a result of the increasing virus threat, there's a constant necessity to hard reset the machine, and it's a pity that Commodore didn't take this opportunity to make things easier for us.

Squeezing into what remains of the available space is more innovative technology – well, according to Commodore it is. To everyone else, it just appears to be a built in modulator. The A600 will provide colour composite video and an RF modulated signal for direct connection to a TV or video, as well as the standard Amiga RGB connector. This is actually quite useful if you are involved in video work as you can run a colour monitor from the composite whilst the RGB is occupied or vice versa.

All this space saving means, paradoxically, that the inside of the case is rather cramped. There's little room inside for any third party wonder devices which plug into your CPU socket, but then, as there's no longer a socket for the CPU, it seems pretty academic.

Having said that, the built-in IDE interface means that you can use internal hard drives, without resorting to additional interfaces and controllers. As IDE is considered to be one of the industry's standard hard drive interfaces, it seems as if you'll be able to plug in non-Amiga specific drives which can work out considerably cheaper. It's rumoured that Commodore are already shipping A600s complete with hard drives ranging in size from 20-120Mb. The 120Mb model was apparently set to retail in Germany for the equivilent of about £500, which makes it cheaper than some A500 standalone hard drives of similar capacity.

IT DOES, DO YOU?

The major addition is, of course, the much-fabled Credit Card connector. Situated on the left-hand side (where the A500 would have an expansion port), the slot supports the PCMCIA standard memory cards. The A600 supports these cards either as a system RAM expansion or as a silicon disk – ie. treats the card as a device, such as a floppy or a hard drive. Support for these cards is likely to be via the latter method for any cartridge-based games likely to be produced. Similar card games exist for the console machines, with cards often containing up to four megabytes of data. Game loading via these cards is not instantaneous, but it's certainly quicker than loading them even from hard drive. Of course, we mustn't forget the advantages in terms of virus protection. Because Amiga viruses revolve around a disk-based system, it seems extremely unlikely that there will ever be any which can affect the cards.

Although a major design feature, it remains to be seen whether the cartridge port takes off with developers. They're ➢





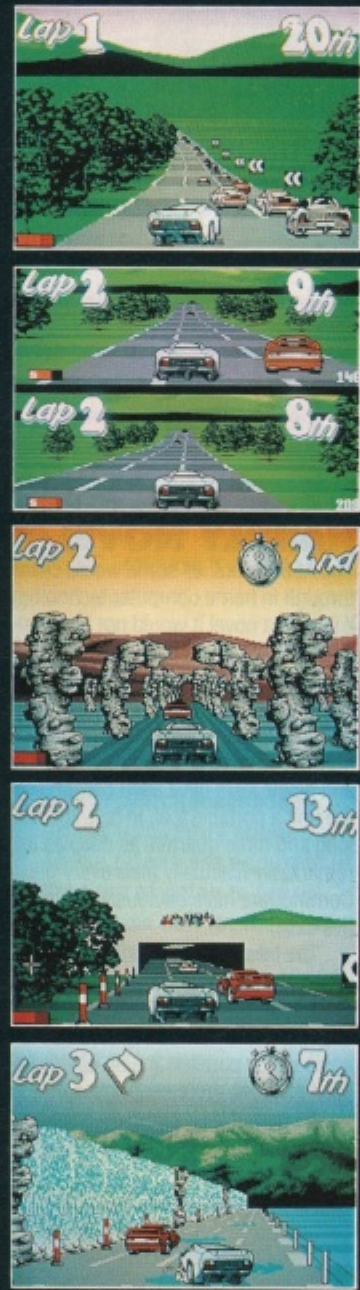
The A600's shape is the most striking thing about it initially. The loss of the numeric keypad may upset some, but there's no doubting that it looks much neater without it.

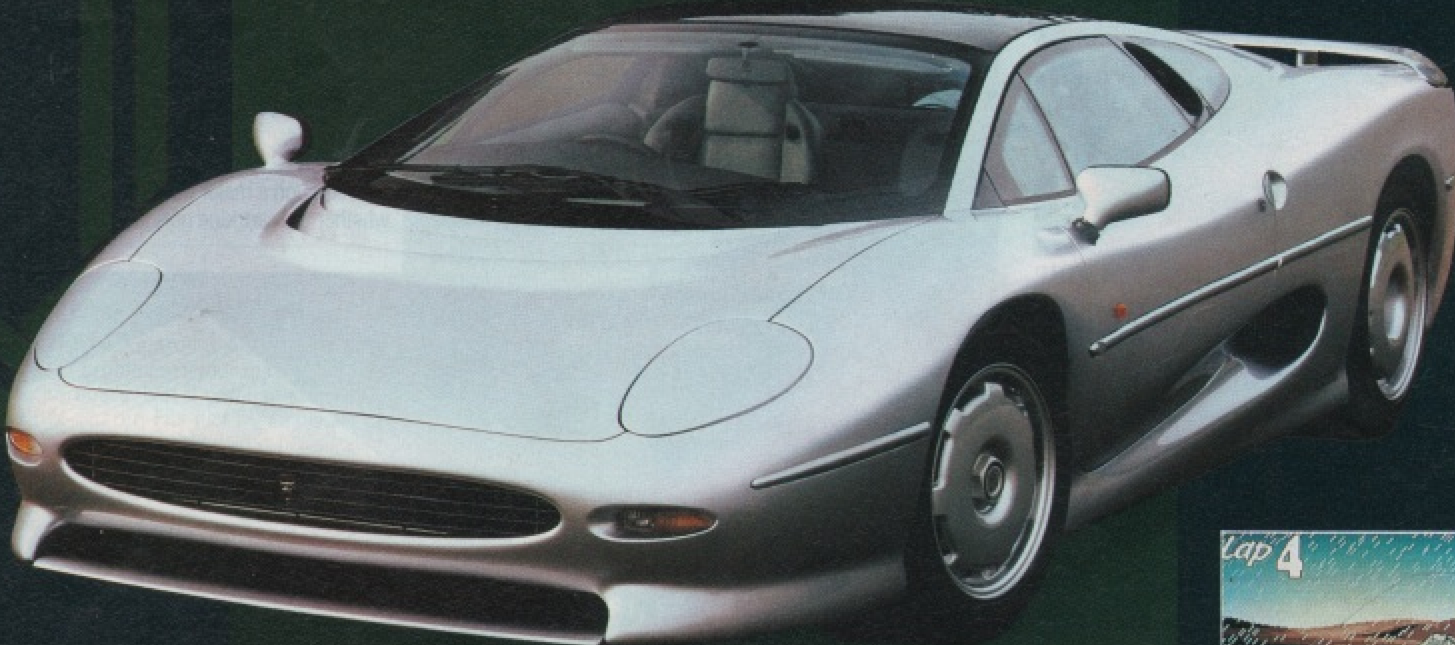
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Screen shots taken from Amiga version

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THE A600

unlikely to develop games purely for A600 owners and risk losing sales to the 3 million ordinary Amiga owners worldwide. Presumably, the idea is that somehow software produced on cartridge will be pirate-proof. Well, it may be slightly harder, but it's by no means impossible.

In the immediate future, the benefits to the end user are fairly minimal, apart from providing a bit of CDTV compatibility – but, even so, the A570 won't work with the A600 so there isn't much point. Some PCs also use these credit card devices, but use a DOS Execute iN Place (DOS XIP) format which is unlikely to be implemented on the Amiga – it would require a working version of DOS to use correctly. However, an AmigaDOS version of XIP will be available, enabling software to launch itself without the need for booting from workbench.

CHIP AND CHANGE

There is also a new version of Kickstart, but don't get upset and run out looking for upgrade kits. Kickstart 2.05 is merely an update which provides ROM support for the credit card slot. The A600 will also come with Workbench 2.05 which has no major differences apart from a new setpatch, and commands for reading and formatting the PCMCIA format cards.

There is a new Agnus under the bonnet, too. The Agnus is the chip that controls all of the things Amiga owners get most excited about: the Copper, the Blitter, the Chip memory. Unfortunately, the new Agnus is the same as the old Agnus – in function, anyway. To facilitate the new circuit board layout, the pinouts have been changed around a bit, and as a result this new Agnus is not compatible with any of the other Agnus chips.

CONCLUSION

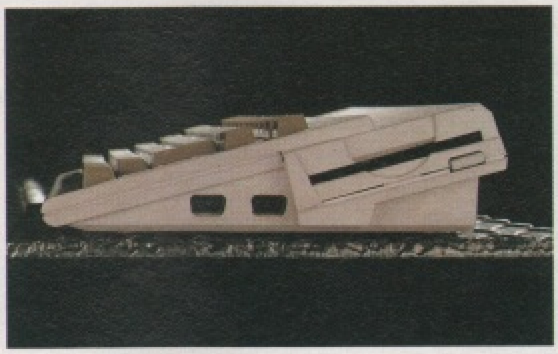
The A600 is a sort of halfway-house between a computer and a games console. Although it has all the base requirements of a computer, it hasn't been designed with further expansion in mind. As a result, don't expect the same range of emulators, accelerator cards, and display boards you would see on other Amigas – because of compatibility problems those that already exist for the A500 won't work with the A600 and new designs are unlikely to be developed. On the other hand, though, the A600 is a neat little unit. If you never intend to do more than play games and fiddle around with *DPaint* or a word-processor there's nothing to hold you back.

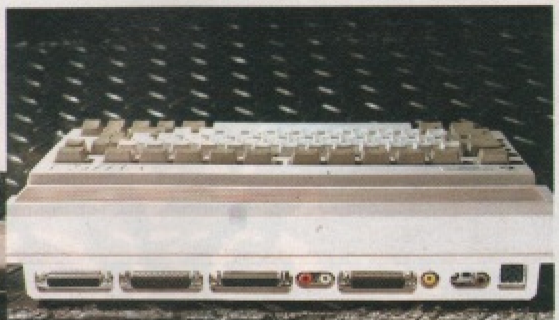
It isn't exactly a major advance in Amiga technology, it seems to be a machine designed for mass manufacture. I wonder if Commodore ever initially planned to release the A500 Plus here at all, as the A600 seems to have been designed as an entry-level Workbench 2.0 machine. It remains to be seen whether the console-like credit card slot will take off with manufacturers. The memories of the endless Commodore 64 variations still linger in many minds.

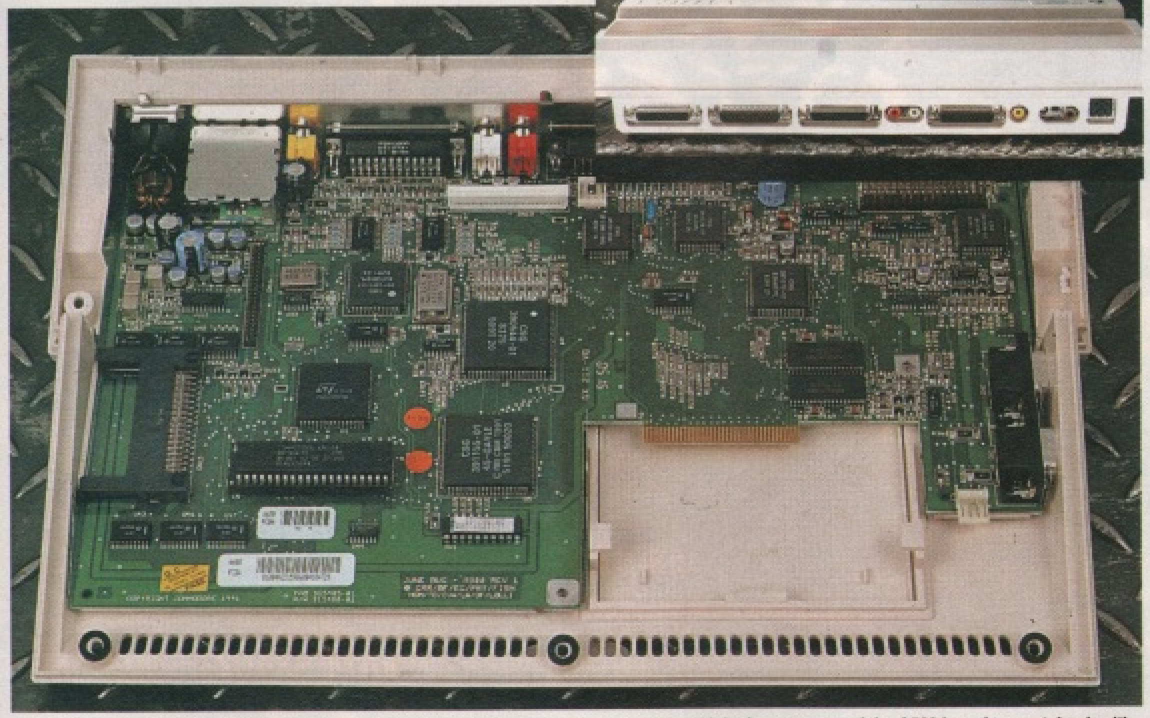
PROS AND CONS

No machine is perfect and the A600 has many features we consider to be redundant or mistakes. That's not to say the machine doesn't have any plus points in its favour. Here we list the major pros and cons of the new machine.

ADVANTAGE	DISADVANTAGE
SMT improves reliability	SMT means no upgrades
No numeric keypad reduces size	No keypad means loss of hotkeys on some software
Built-in Modulator	Small PSU means less add-ons
DRAM chips uses less power	No expansion slot
Hard drive option	Not compatible with A500
Trapdoor slot	No expansion port
Smart card slot	
Latest Kickstart & Workbench	
Joystick/mouse ports more accessible (at side)	







As with the A570, surface mount technology makes for a more compact design. All the original connectors of the A500 have been retained, with the exception of the Mono Video Out port, which has evolved into Composite Colour. The modulator is internal now, too.



FEATURES SPECIFICATION

If you want to know the A600's inner most secrets, here's a break down of its specifications...

MEMORY 1Mb expandable to 10Mb

CO-PROCESSORS

GRAPHICS AND ANIMATION – Blitter provides high-speed data transfer where data from three sources can be linked in different ways. Fast line drawing and block shading. Controls 25 DMA channels.

VIDEO CHIP – Up to 4096 colours depending on mode. 8 Sprites controller (redefinable, with collision detector). Various screen resolutions.

SOUND AND PORT CHIPS – I/O Control of serial and parallel interfaces, control ports, (mouse/joystick), keyboard, audio output - four independant DMA sound channels configured to left and right audio channels. Four voices (DMA sound sampling channels). Programmable amplitude and sound sampling rate. Nine octaves. Unlimited complex waveforms. Built-in text to speech synthesis.

DISK STORAGE – Integral 3.5" floppy disk drive (880kb formatted)

OPERATING SYSTEM – AmigaDOS

Ports

One PCMCIA – Card slot

One Programmable serial port – rates to 31,250 (RS232, MIDI adaptor)

Parallel/serial port PC standard

Two control ports for mouse/joystick, graphics tablet*, light-pen*,

Stereo audio, RGB analogue/TTL. Colour composite video.

Mouse – Two button design.

Connectable – One external 3.5" drive

Power Supply – External Mains 240v, 50hz

Expansion Facilities

Colour monitor

3.5" floppy drive

Hard Drive

* Third party product

Blue moon . . .

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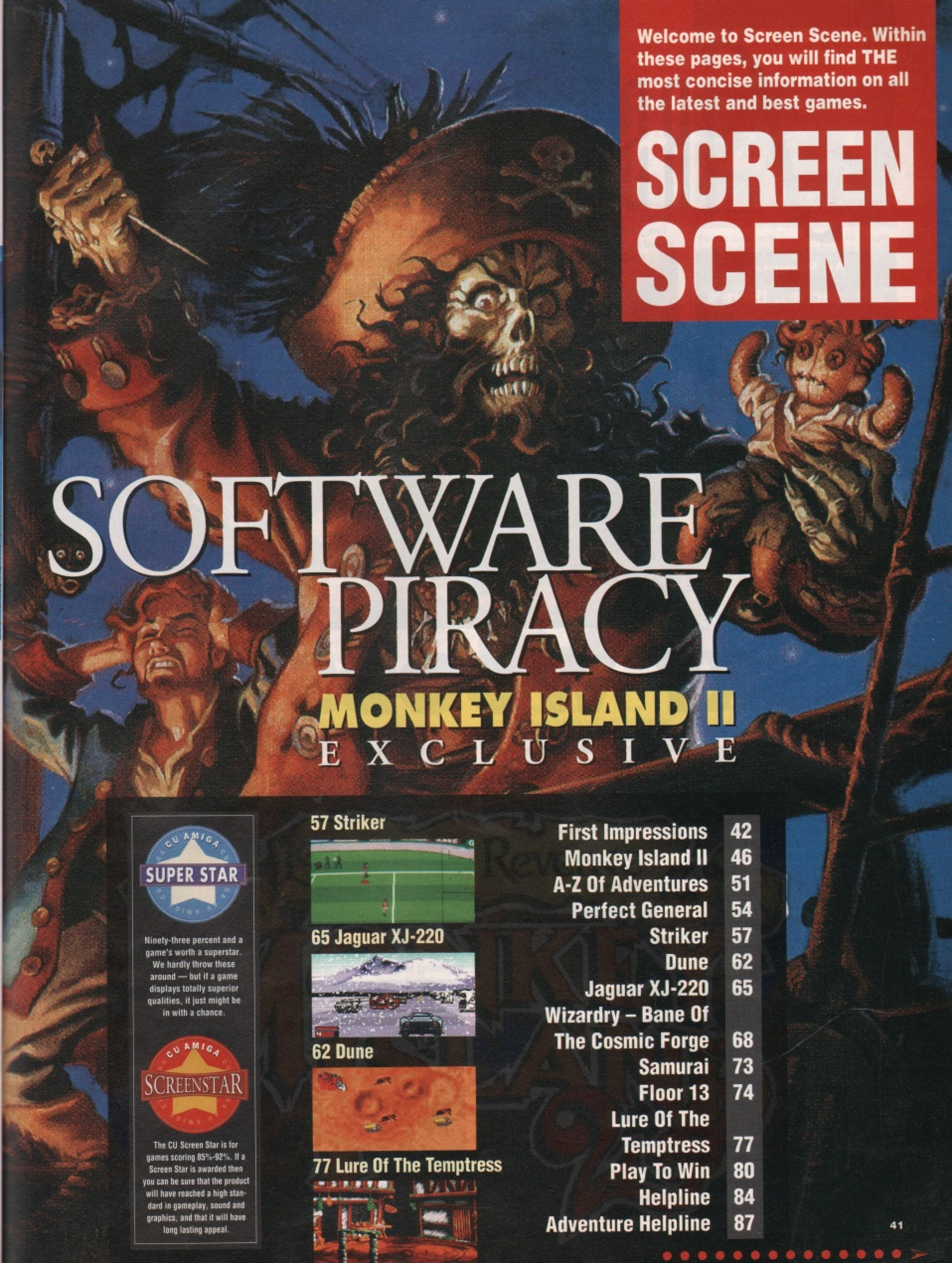
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SCREEN SCENE



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57 Striker

65 Jaguar XJ-220

62 Dune

77 Lure Of The Temptress

FIRST IMPRESSIONS

As Summer approaches, there's still no sign of the flow of games a bating for the dreaded 'Summer Slump' - CU takes a look at a few of this Summer's Beach Babes...



RISKY WOODS

Electronic Arts Get Dinamic...
THE GAMEPLAY: At its most basic, *Risky Woods* is a colourful update of Capcom's *Black Tiger* coin-op. However, whereas Tiger was limited to a 'collect'n'shoot' synopsis, *Risky Woods* is a larger, more detailed game with puzzle elements and huge end-of-level guardians to contend with. EA are billing *Risky* as a 'console-quality arcade/adventure', and the player is cast as a young would-be hero called Roham. The scenario tells of a band of Monks who have ensured that peace reigned over the land for years. However, evil is afoot, and a mysterious force has taken each of the Brothers and turned them into stone. In addition, chaos now reigns as the evil magician's creatures roam the land, devastating the once-beautiful landscape. As Roham, you are the only person deemed fit enough to free the Monks from their stony confines and restore the balance of power once more.

Controlling Roham, the player is given full control over the running and jumping hero as he slashes his way through the hordes of evil minions using his infinite supply of throwing knives. As the screen scrolls in the customary eight directions, the assailants appear from every direction and will sap Roham's energy on contact. In addition, the landscape is pitted with crevices and chasms, and should Roham fall into one of these, one of his three lives will be lost. On the plus side, though, every time a nasty is killed, they relinquish a gold coin which, when collected, can be traded in for more powerful axes and fireballs – finances permitting.

The puzzle element is brought into play for the release of the entombed Monks. Before a Monk can be released, though, a special 'Eye Key' must be located and taken to where the Monks are located. There is one Monk per level to rescue, and the game is complete when all twelve can reunite to banish the evil from the land once and for all...

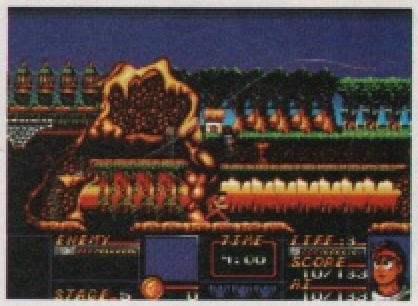
PLUS POINTS: EA boast that *Risky Woods* features console-quality graphics but, if anything, *Risky*'s sprites and backdrops far exceed anything the Nintendo or Sega systems could hope for. Roham is a stocky-looking sprite, and the enemy sprites are equally impressive, with large bats and skeletons giving way to larger guardians who occupy half the screen. In terms of backdrops, *Risky Woods* is equally hot, and the Amiga's palette has been fully exploited, with stunning parallax and bold, bright colours used to depict the assorted forest areas. The attention to detail doesn't end there, though. For instance, as Roham enters a dark cave, the programmers add a realistic shadow effect, which adds to the confined atmosphere immensely.

BEHIND THE SCENES: *Risky Woods* is the first game to hearken from Dinamic's Spanish offices for almost a year. Coding started early last year, and the game has undergone a process of refinement since its completion several months back. On taking the game to EA, the Langley-based company decided that several tweaks were needed in the difficulty department (Dinamic's games have always had a reputation for being tough to beat), and a few of the original version's rough edges have also been smoothed away.

FIRST IMPRESSIONS: Although very simplistic in game content and style, *Risky Woods* is still a superior platformer. The combination of blasting (well, stabbing) and acrobatics is a good mix, and add to this a large dollop of well-designed creatures and guardians, and EA and Dinamic are on to a real winner. The levels can hardly be described as the most complex ever, and follow a linear route from left to right, but as there's so much going on and the backdrops vary so much, there's very little chance of repetition setting in.







Risky's creatures are a stunning collection of skeletons, insects, and humanoid guards, and all follow the same pattern of running towards you in an attempt to sap your energy. In addition, also awaiting your attentions are a series of 'Boss' creatures, who can withstand several hits.

DOOFUS

An Everyday Story Of One Man And His Dog...
THE GAMEPLAY: The unusually-named *Doofus* takes the line of 'Man's best friend' just about as far as it can go. Set against a backdrop of a colourful scrolling play area, the basic idea in *Doofus* is to guide your player across the screen in search of the letters which will make up the word 'BONUS'. However, trailing behind the character's every move is a little Dog, and every action that the main sprite makes, the Dog copies a few seconds later. As the strange world is chocabloc with all manner of deadly nasties, this is great as it effectively doubles the unnamed hero's firepower, but should the Dog come into contact with anything remotely dangerous, it will kill the hero, too. This works the other way, too, as the Dog will kick the bucket should the hero take a hit.

The land in *Doofus* is a strange area indeed, with the many ledges and platforms inhabited by a strange mixture of goodies, nasties, and traps. As you scour the area for the much-needed letters, deadly Bees, Mice, and insects home in on you, and must either be avoided or shot at with whatever your hero is currently holding. In all, there are twelve stages to be cleared of goodies, and at the end of each stage cash is collected by killing nasties who will then release a coin. With your new-found wealth, the shopkeeper will then be able to bolster your armaments with the likes of bombs, shields and bubbles, and these are then accessed during play by pulling down on the joystick and pressing fire.
PLUS POINTS: *Doofus* is a strange little game in the respect that there's nothing particularly outstanding about it, yet it still remains fairly compelling. In terms of gameplay, its nearest relative is Graftgold's *Fire And Ice*, where the idea of a companion tailing your every move made its first appearance – however, the idea has admittedly been extended with the death of the Dog killing the hero, too. The layouts of the levels are large and winding, and further interest has been added in the shape of a series of secret tunnels, where the Dog becomes the real hero in an attempt to scoop as many further goodies and letters as possible – whilst battling against an ever-decreasing time-limit.
BEHIND THE SCENES: The work of German development team, Prestige, *Doofus* will be released in Britain via DMI. The game has been in development for almost nine months, with the three-man team splitting graphics, sound and coding work between them. It's fairly obvious to see that *Doofus* bears similarities to *Fire And Ice*, but this is vehemently denied as both games were in development at roughly the same time – a happy coincidence? The game is currently 75% complete, with the final touches to the last few stages being added at the time of writing. However, we do hope for a full review within the next two issues.
FIRST IMPRESSIONS: Going up against *Fire And Ice* is not an enviable proposition, and *Doofus* will certainly have its work cut out if it is to topple Graftgold's platformer. In its favour is its addictive gameplay and large play area, but whether its levels will have the variety and content of the Graftgold game remains to be seen. Admittedly, the version we have seen was in an early state of development, and if Prestige live up to their promises of massive and varied levels, it should be an impressive debut. We wait with bated breath...

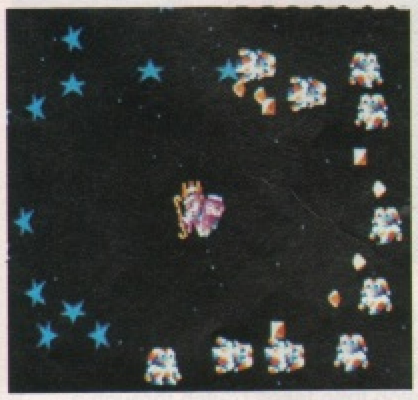


Further supplies for your quest can be bought from the shop which appears between each of the stages.





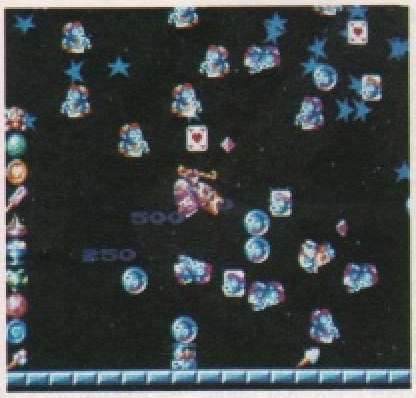
GALACTIC

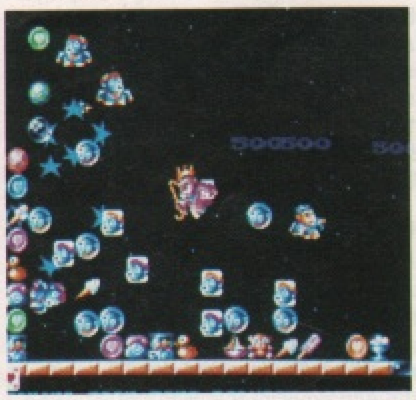


Terramarque await King Rudolph...
GAMEPLAY: King Rudolph is rudely awakened from his sleep to discover that the animals depicted in his favourite card game, the *Galactic* of the title, have magically come to life and are thrashing out their own version of a usually more passive battle, in the heavens.

The animals are divided into two sides: the red deck and the yellow. Each side has a leader, represented by the King, and a corresponding energy bar. Rudolph must take it in turns to represent one of these colours by colliding with their leader and fighting for their side. By shooting the opponents' animals, he turns them back into cards and they fall to the ground. The king must then catch them before they hit the deck to maintain his energy, swapping between the two sides to utilise the maximum amount of energy available to him. In the meantime, though, the two teams continue to battle it out and attempt to trap each other in crystals until one side wins and the survivors come after Rudolph.
PLUS POINTS: The game runs at a speed of fifty frames a second and displays an almost unlimited amount of sprites at any one time. Incredibly, all this information is stored in your Amiga in one loading, meaning that the computer won't have to access the disk again until you've completed the game. Sound is also given the five-star treatment and is rendered in six-channel stereo to maintain maximum arcade feeling.

Later levels get more complicated as further gameplay features are introduced. On the Toy Floor level, cards falling to the floor turn into toys which, when collected, reward the player with extra time rather than energy. A warp function is also included to whisk you away to further levels as soon as a predetermined number of animals are trapped.
BEHIND THE SCENES: *Galactic* took over eighteen months to complete with a small team of dedicated programmers and musicians keeping a tight reign on the its progress. Terramarque's brief was to produce an arcade-quality, addictive game without the element of violence they found so common in most Amiga offerings. Finnish programmer Stavros Fasoulas, famed for his many classic blasts on the C64, including the space shoot 'em ups *Delta* and *Sanxion*, has been handling the graphics for *Galactic* and hopes that the game will quench a much-needed demand for frantic yet friendly careware.
FIRST IMPRESSIONS: *Galactic*'s many sprites move at such a pace that you'll hardly ever get a good enough chance to take long, lingering looks at them. In addition, further distractions come in the busy gameplay, with the player not only struggling to strike a balance between the two teams, but also keeping an eye on their energy level and any other sundry tasks the game throws up. Hopefully a few more features will be added to the game before it's scheduled release, as it could prove a little shallow, but Stavros's proven track record includes the excellent C64 puzzler, *Quedex*, so he should know what he's doing...



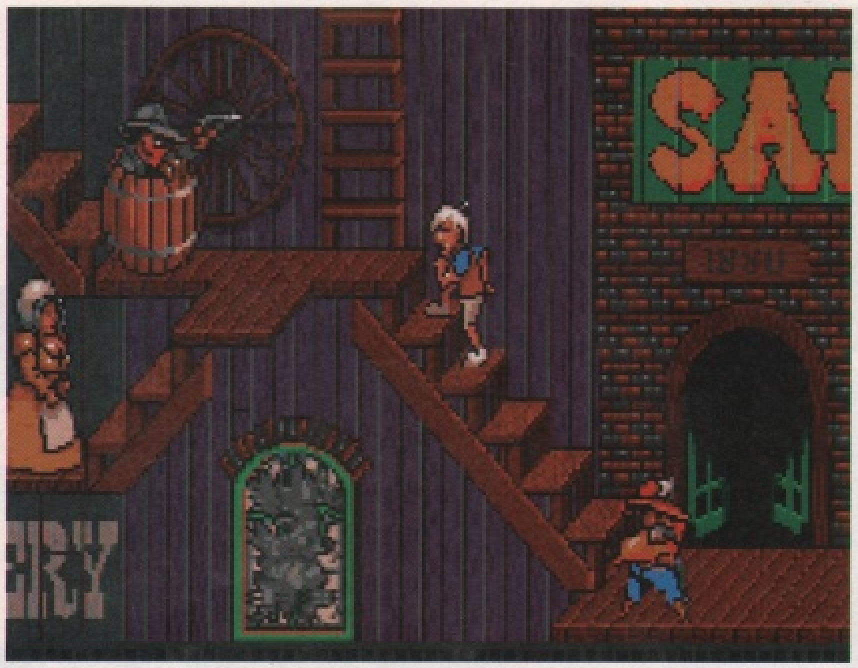


Galactic is a massive step away from the hectic goings-on of *Delta* and *Armalyte*, but still maintains the huge number of sprites the two 8-bit games were famed for – and the speed.

PREMIERE

SPECIAL

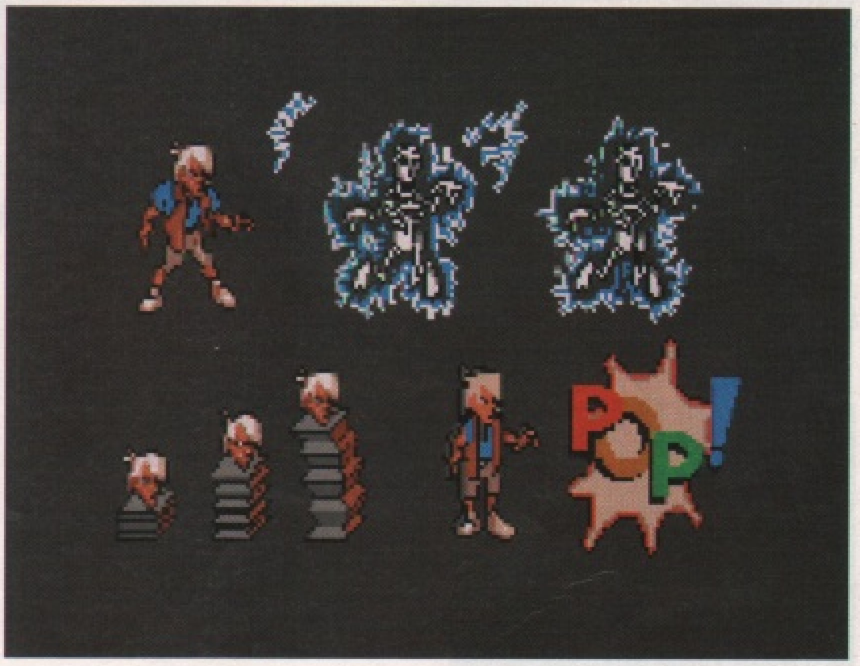
After trying their hand at the RPG and racing genres, Core are now entering the movie business with their latest Platformer. With *Heimdall* artist, Jerr O'Carroll, directing will it be a box office smash?





All the graphics are being pieced together using *DPaint III*, whilst the actual level date is pieced together jigsaw-style on Dan Scott's 286 PC. However, all the levels are drafted on paper first to save later confusion.

Once again, Jerr's Sullivan-Bluth training shows in his large sprites and attractive backdrops. The Clutch Cable sprite is one of the largest ever to grace a platform game.





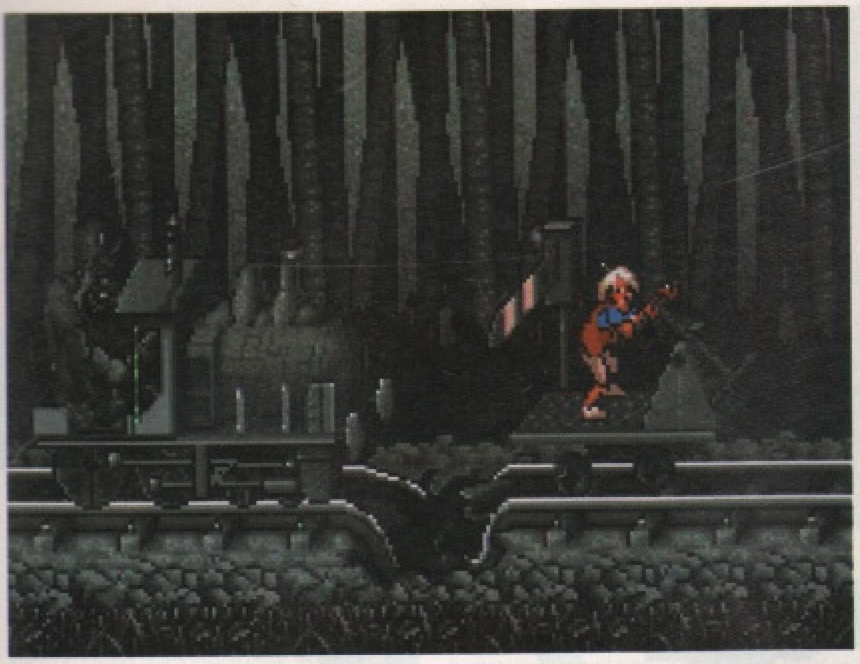
LIGHTS

Whenever something is successful, the hardest thing to do is follow it up. Take the Poseidon Adventure as an example. OK, so we've all seen it dozens of times and it only warrants a cursory viewing now, but how many of you remember the sequel, Beyond The Poseidon Adventure? Or what about The Wizard Of Oz and Return To Oz? Precisely. This can also be said of computer games, and it is somewhat ironic that Core are using a film set scenario to display *Heimdall* graphic artist and ex Sullivan-Bluth animator, Jerr O'Carroll's considerable prowess. However, rather than reuniting Jerr and 8th Day partner, Ged O'Keaveney, *Premiere* stars Dan Scott as the chief coder.

Tenuous links aside, *Premiere* has grown from an initial idea proposed by Jerr to Core's Jeremy Smith. 'We (Core) had long since wanted to produce a game similar to *Prince Of Persia*,' opens Smith, 'but we wanted to add more *Rick Dangerous*-style traps to liven things up slightly. Another specification we wanted was that it was to utilise large cartoon-like graphics. As Jerr specialises in these, he was the natural choice.' Jerr, however, doesn't quite agree with the *Prince Of Persia* comparison: 'We deliberately wanted to make something platform-orientated,' he begins, 'but I wanted its success to hinge on playability rather than its complexity. In addition, it goes slightly further than, say, *Persia* as it features much larger sprites with the same detail of animation and allows the player to move behind the film sets – effectively doubling each level's size.'

CAMERA

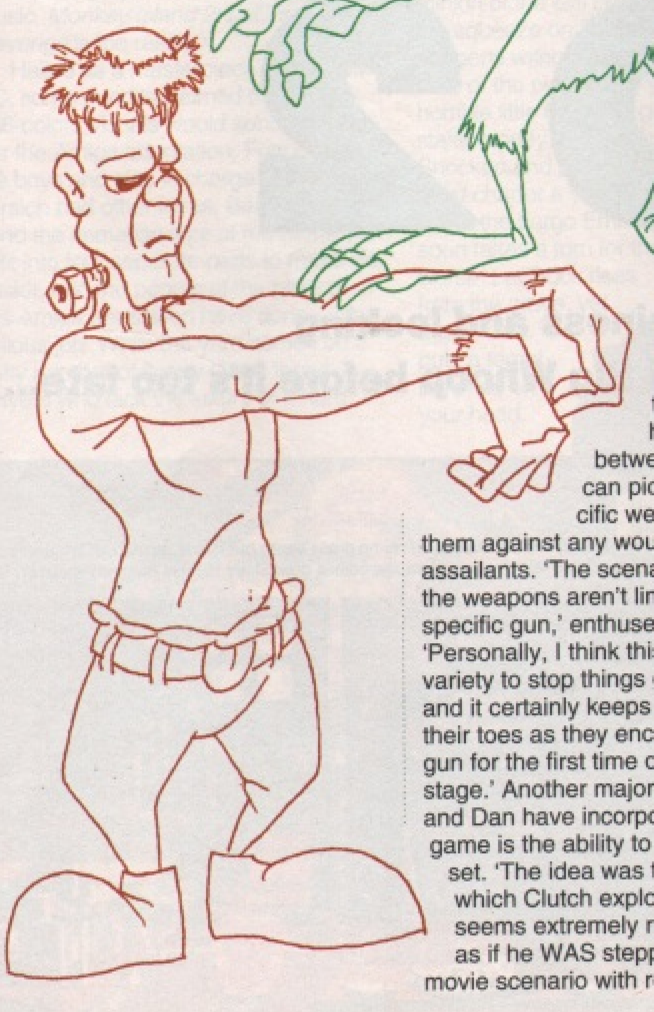
Premiere's scenario tells the story of a hassled film editor whose latest blockbuster project has been stolen and scattered throughout the surrounding six film sets. Stepping into the sneakers of this film editor – who goes under the unfortunate name of Clutch Cable – the player must explore the sprawling eight-way-scrolling play area and piece together the missing reels. This mission then takes Clutch through a series of strange platform-laden screens, each of which reflects a film style. 'We've gone for a wide variation in styles,' offers Jerr, 'as this allows us to incorporate a wider range of ideas and sprites. For instance, one of my favourite levels is the Wild West set, which features all the expected Cowboys and Bandits, but other, incidental characters, too.' During the development of *Heimdall*, everything was meticulously planned, so has *Premiere*'s game design been concrete from the start? 'No, not really,' he continues, 'although we had the idea for the platform game, the plot line and plan-



ning behind *Premiere* has been a lot more relaxed. It's nice in a way, as I'll say to Dan "hey, what about this", and we'll experiment with the idea before deciding whether to use it. A good example is the cameraman who appears during the Western scenes. He's one of those stereotyped cameramen who has the black cloth over his head and one of those smoky flashes, but if you're facing him when he takes a picture, the screen is switched to use the sepia tones associated with the old style photos, and Clutch is temporarily paralysed – but the enemy aren't!'

As our hero progresses, the sets move on to Horror films, Sci-Fi epics, B-movies, and black and white themes, each of which sports more and more hostile creatures. Clutch isn't unarmed, though, and as he clumps between levels he can pick up level-specific weapons and use them against any would-be assailants. 'The scenario is great as the weapons aren't limited to, say, a specific gun,' enthuses Jerr. 'Personally, I think this adds a lot of variety to stop things getting staid, and it certainly keeps the player on their toes as they encounter a ray gun for the first time during the Sci-Fi stage.' Another major addition Jerr and Dan have incorporated into the game is the ability to walk behind the set. 'The idea was that the world which Clutch explores would seems extremely realistic – almost as if he WAS stepping into a B-movie scenario with real-life weirdoes – but on walking through a door, he would pass into a wood-panelled area directly behind the set, complete with struts holding the walls up', offers Jeremy Smith.





ACTION!

To keep *Premiere* from being bundled with the countless other platformers currently doing the rounds, Jerr has even gone to the extent of altering the way the game's end-of-level guardians work. 'When I came into the industry,' says Jerr, 'I worked with Emerald Software in Ireland for a while on *The Running Man* and *Moonwalker*. Because I wasn't familiar with computer games as a whole, I would come up with these ideas and they would say "oh no, you can't do that, it's never been done before!" I realise that there are only really seven genres in existence, but with a little lateral thinking, at least some originality can be added.' And it has to be said that *Premiere* certainly excels in the guardian department.

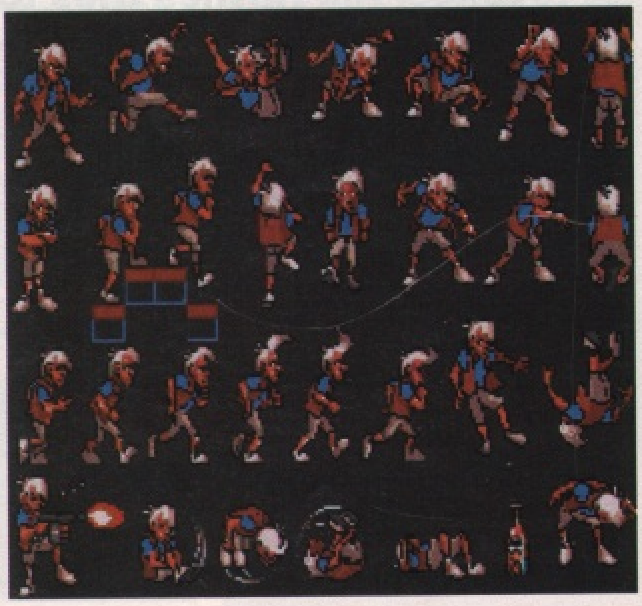
Although the bosses Clutch faces are large, they don't all follow the 'shoot until they die' pattern. For instance, during the horror film section, Clutch stumbles across a large wheel and a locked door – with a large creature also on his tail. However, jumping inside the wheel and running inside it as a Hamster plays in a wheel, a series of smaller wheels and cogs are turned, eventually opening the door before the monster gets to you. Jerr continues: 'there's also a sequence where Clutch is a trolley, with a large train chasing him. Clutch must make the trolley leap over any holes in the track and duck under jutting poles whilst lobbing dynamite at the oncoming train to slow it down a little.' If the duo's ideas come to fruition, it certainly looks as if *Premiere* will be a welcome addition to the platform genre – and it also takes Jerr back to the movies where he began...

BEHIND THE SCENES

Jerr and Dan started work on *Premiere* a little over four months ago, with Jerr returning to his trusty copy of *DPaint III* for the graphical and animation chores, whilst Dan beavered away on a 286 Snasm-based PC for the coding. After roughly outlining what they hoped to achieve, Jerr and Dan were left to their own devices to come up with the game specificiations. 'The choice of levels seemed fairly obvious,' says Jerr, as Horror films, Westerns and Sci-Fi films offer an excellent variety in characters and animation possibilities.' Weren't they worried that *Premiere* would be compared to Gremlin's *Video Kid*, though, which used a similar setting? 'No, not really,' he admits, 'after all, they're two entirely different games, and there's no way ours can be classifed as a shoot 'em up, although the player does take out the people chasing him.'

Each of *Premiere*'s six sets spans roughly 8x8 screens, but the play area is doubled because Clutch can also take a look behind the sets. In addition, the end-of-level screens also span a number of screens, adding to the game's already considerable size. 'It's starting to get a little tight on the memory front,' Jerr sighs, 'and obviously this is because of the large sprites and the animation which goes into them, but we'll get it all in somehow.' Here's hoping.





Hero and film editor extraordinaire, Clutch Cable, in all his animated glory. In terms of memory, Clutch occupies over 300K, and that still doesn't include other, level-specific, moves – including death by crushing.



LeChuck's Revenge is quite easily the most graphically-stunning game to emerge from the Lucasfilm stable.

SECRET *of* MONKEY ISLAND 2

With the fearsome ghost pirate LeChuck back in business and looking for revenge, Rik Haynes tries to solve the mystery of Big Whoop before it's too late...



Above: **This is no time for Guybrush to go shopping. Or is it? The antique shop on Booty Island is packed full of useful bits and bobs. It looks like that parrot could handle a snack, though.**

Below: **I always knew Guybrush had no dress sense but this is ridiculous! What will Governor Elaine Marley think when she comes downstairs to meet her party guests?**





That's handy. Phatt Island, the next stop on our busy Caribbean cruise, has a library. It's about time Guybrush tried to improve his mind.

HOIST THE JOLLY ROGER

Most games designers look to movies and books for ideas, but very few are inspired by theme park rides. After a visit to Pirates Of The Caribbean, which is apparently the best thing about Euro Disney, the development team at Lucasfilm Games let their combined imaginations run wild. Until the release of *The Secret Of Monkey Island*, the 'average player' usually stayed well clear of this style of product. While other games take themselves far too seriously, this one cleverly poked fun at swashbuckling folklore, stories and films. The attractive graphics didn't do it any harm, either.

Like the old saying goes, you can't have too much of a good thing. So, with customary style and flair, the only game publisher with a direct line into the movie making business decided to produce a sequel with more gags, gameplay, graphics and, erm, reggae music. *Monkey Island 2: LeChuck's Revenge* is the result.

Hailed as a masterpiece on the IBM PC, some pundits claimed the lack of 256-colour visuals would seriously hamper the Amiga adaptation. Fortunately, the boys and girls in charge of this conversion had other ideas. Bearing in mind the immense size of the game, it's split into four separate parts to make life easier, and the people at the helm of this Amiga translation have done a marvellous job. While the yarn comes on a hefty number of floppy disks, those players who lack the luxury of a hard drive are promised the bare minimum of hassle. Moreover, the programmers are currently devising an intelligent loader to prevent the single floppy drive user going spare with needless frustration.

TREASURE ISLAND

Following his ghost-busting antics in *The Secret Of Monkey Island*, Guybrush Threepwood is thirsty for the thrills of more high seas adventures. Taking the role of our boastful hero, the player directs the actions of Guybrush in his quest for the biggest treasure of them all. Tales of the Big Whoop have tempted him back to the cutthroat career of wise-cracking adventurer. He's not sure why, but Guybrush knows this legend is somehow real and ready for the taking.

On his way to the seedy town of Woodtick to find a crew and boat, Guybrush immediately encounters his first obstacle: Largo LaGrande, extortionist extraordinaire and obnoxious minion of the evil LeChuck, is putting the squeeze on Scabb Island. Nothing happens without Largo claiming a large slice of the pie. Before you know it, this horrible little bully has grabbed the stake money and made a quick exit. Shocked and penniless, Threepwood must charter a ship and find a way to crush the Largo Embargo. The situation soon takes a turn for the worse. LeChuck rises from the grave, yet again, and puts a tempting price on your head. Luckily, Guybrush can rely on the help of old friends like the Voodoo Lady and Elaine Marley, but the task ahead is no picnic for wannabe pirates.

As Ron Gilbert, the creator of *Monkey Island 2*, puts it, 'revenge is a motive everyone understands' – and Guybrush has a heck of a time avoiding the consequences of LeChuck's anger.

WALK THE GANGPLANK

Trying to appeal to as wide an audience possible, players are subtly guided through the humorous ventures of Guybrush. There's also an optional easy mode for beginners.

While creative challenges draw players into the whole experience, a good plot is essential to prevent their interest from gradually waning. A magical formula for creating a tasty blend of the key elements seems to have been hit upon here. According to the guys responsible, they concentrate on the story first and the characters fall out of that. All the puzzles are then carefully crafted to fit in with the story. The script writers and programmers tend to come up with a lot of funny and bizarre ideas at this point. Artists in the group are asked for their opinions, too. It may seem as though the entire team is 'goofing off' but this is a demanding and crucial part of the project. Gilbert was so absorbed by the process, in fact, that he even solved tricky problems in his ➢



Guybrush can't afford to stay in Largo's room for long. Hey, isn't that a wig over there? I bet he'll miss that one.



The International House of Mojo – what could possibly benefit an adventurour pirate here?



SUPER STAR

'You have to have fun to make fun.'
Tim Schafer

Before he became the world's first philosopher of video games, Tim Schafer helped with the programming, dialogue and design of LeChuck's Revenge. A keen player of *Ballblazer* on the Atari 800, he's now working on his own SCUMM game. Away from the office, he likes to play the banjo and fold paper into carnivorous reptiles. He's also allergic to mushrooms.

'We want our games to appeal to a wide audience, not just to people who are already computer savvy.'
Dave Grossman

After a brief career as musician, T-shirt artist and teacher, Dave Grossman is now a project leader at Lucasfilm Games. He likes to read comic books in his underwear, eat things that aren't good for him and watch the work of Ray Harryhausen.

'*LeChuck's Revenge* is the only project where I can imagine animating characters in a spitting contest.'
Sean Turner

'Drawing with a mouse is like drawing with a brick.'
Sean Turner

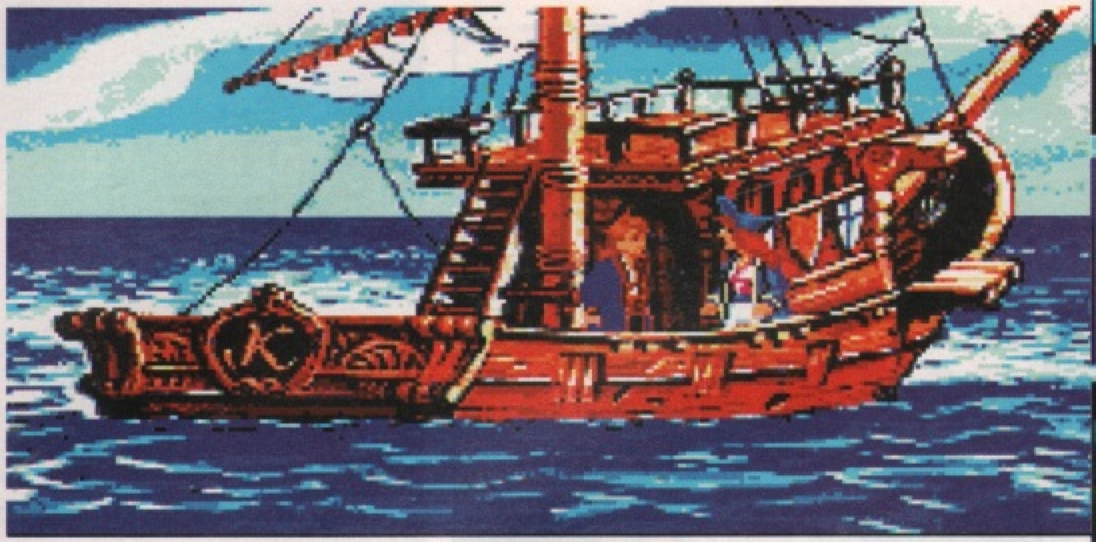
Perfecting his animation skills at Hanna-Barbera, Sean Turner joined the famous special effects division of Lucasfilm, working on everything from Ghostbusters 2 and Ghost to the three Indiana Jones movies. Surprisingly, Howard the Duck was his favourite project at Industrial Light & Magic because it required lots of animated effects. Turner is a great fan of the cartoon king, Chuck Jones.

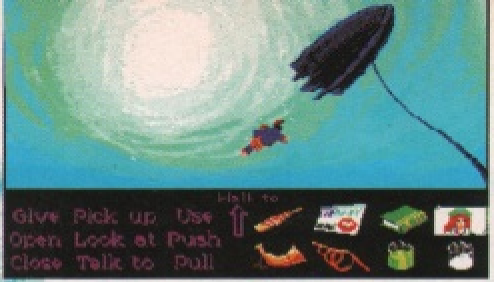
'We are able to create effects not easily achieved with traditional painting methods. It's easy to see why *Monkey Island 2* is packed full of weird and whimsical animation action.'
Colette Michaud, Art Department Supervisor at Lucasfilm Games

'From the beginning of the game, I wanted the music to sound like what you'd hear coming out of a radio if you were walking down a street on a Caribbean Island.'
Michael Land

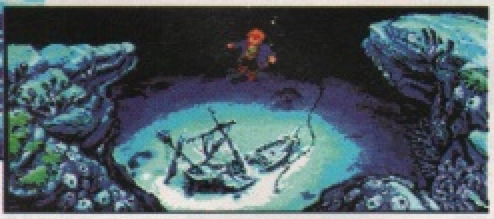
'We just couldn't fit all the jokes into *The Secret Of Monkey Island*, so we had to create a sequel.'
Ron Gilbert

"I'm still trying to figure out how to get everything I want into an adventure game."
Ron Gilbert











Searching for the fabulous Mad Monkey takes Guybrish through a series of stunning-looking islands and rooms. Particularly impressive is the sunken Galleon which holds many clues as to finally defeating LeChuck.

SECRET of MONKEY ISLAND 2

sleep. No wonder *Monkey Island 2* is so weird. How many times have you had to spit to succeed or seen a monkey playing a piano in perfect time to a metronome?

SCUMM, the much talked about operating system used in every graphic adventure from the firm, has undergone a few tweaks since the original outing of Guybrush and his pirate pals. This continues the trend to streamline and enhance the user interface and inner workings of every new game. Why is this revolutionary game engine called SCUMM? It's actually an acronym, and stands for the Script Creation Utility for *Maniac Mansion.* This high-level scripting language allows the writers to focus on being creative rather than worrying about technical mumbo jumbo. Constructed of many small programs simultaneously running in the background, SCUMM manages the locations and activities of characters and objects populating every fantasy world that's created by Lucasfilm.

BLACKBEARDS AND BUCCANEERS

Control over Guybrush is a breeze, allowing any novice to instantly get to grips with the system. Simply point the cursor where you want Guybrush to go, click the mouse button and he'll walk to that location – automatically avoiding any obstacles along the way. Unlike those weak text parsers employed in the past, players don't waste any time guessing which words they have to enter because all the commands are displayed beneath the main window. Actions like 'give', 'pick up', 'look at' and 'talk to' are activated with a single click, the desired character or object is then highlighted, and the operation performed before your eyes with one more depression of the mouse button. Keyboard shortcuts further improve the workability of this control mechanism. Sentences like 'Use pins in voodoo doll' or 'Talk to parrot' are constructed within a matter of seconds.

Almost everybody in *LeChuck's Revenge* has something to say. Gilbert first dabbled in the art of conversational computer games when the script for *Indiana Jones And The Last Crusade* landed on his desk. Apart from the dialogue solely included to add atmosphere, you can learn a few tips from these rather peculiar chats. When words need to be spoken, a selection of possible phrases replaces the panel of verbs and inventory icons. Any snippets of speech are displayed in the panoramic view of your immediate surroundings at the top of the screen.

There is no limit to the number of objects that can be carried. The trick is to spot any goodies lying around, they're bound to prove useful somewhere down the line. It's particularly amusing to see Guybrush attempting to squeeze a giant monkey figurehead inside his coat pocket.

One thing that annoys me about, say, *Space Quest IV* from Sierra On-line, is the way your character will frequently die searching for the next clue. Gilbert also hates this technique and believes players don't want to be whacked over the head every time they make a mistake. Thankfully, Guybrush is a pretty robust fellow. He cheerfully walks away from a massive explosion without so much as a scratch during a later section of the game. Players can therefore focus on the story and puzzles, not waste time saving the game in fear of potential danger.

If you do encounter any difficulties attempting to claim the prize of Big Whoop, US Gold's handy guidebook containing the complete solution costs a tenner.

SKULL AND CROSSBONES

It should be obvious by this stage that *LeChuck's Revenge* is something special. Striking visuals have become the hallmark of a good graphic adventure and *LeChuck's Revenge* is head and shoulders above the rest. Yeah, it maybe make-believe but the attention to detail is breathtaking. This lively production claims to have over 6.4 million pixels on show. From a myriad of lengthy planning meetings, the artwork and music were painstakingly fashioned to complement the storyline. Programmers worked with a team of artists, animators and composers to make the story come to life. Scrolling panoramas and rich spot animation give the game a very distinctive look. This, coupled with refined film-like techniques and proportional character scaling, help to smoothly transport viewers into the illusion. For his part, Guybrush plays his role brilliantly when questioning other characters. The body shrugs and raised eyebrows, and other gestures are sheer perfection and significantly add to the immense entertainment value of this product. Not that the supporting cast haven't got a few neat moves of their own.

Attempting to improve the look of *Monkey Island 2*, the art studio tried a different approach to creating the numerous bits of background scenery. Prompted by the success that Sierra Online and Dynamix had from utilising scanning and video frame-grabbing equipment to produce startling backdrops and sprites, the designers wanted to adopt similar methodology on a trial basis. Sadly, it wasn't easy to implement at first. After mucking around with acrylics and various types of pencil, the artists eventually found a

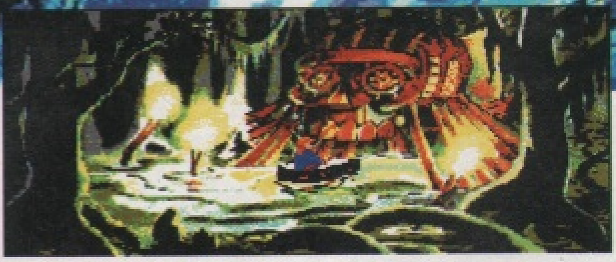


Huh? Guybrush and his friend are at the mercy of LeChuck. And we all know pirate ghosts aren't very forgiving. Only a cunning plan could get Threepwood out of this one. Got any ideas?



Ever heard the one about walking into a lion's den? Sure, Guybrush must take a few risks but sneaking into LeChuck's private chambers is absolutely suicidal. Is that footsteps I can hear?





Above: Outside the Swamp Rot Inn on the edge of Woodtick. The cartographer is a friendly chap. Guybrush should be able to learn a lot after a quick chat with him.



Above: To help get rid of Largo, the Voodoo Priestess will aid you. Thus, it's time to visit the swamp-surrounded International House of Mojo.

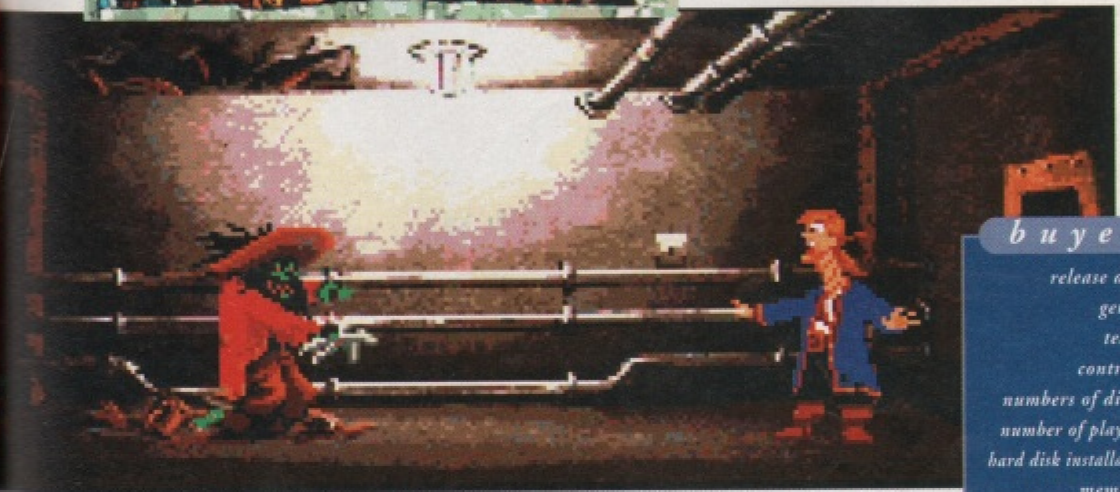
Left: A stroll around the beach should clear the head. Hmmm, what's burning? It seems to be coming from that shabby old shack in the distance.



Right: Yikes! Wonder if there are any zombies hanging around the cemetery tonight? It's not very nice but Guybrush must become a grave robber to stop Largo's Embargo.



Left: Captain Dread is a cool raggae pirate. How is Guybrush going to find the cash to hire Dread's houseboat and leave the island? Our busy adventurer is also rather thirsty...



Arrrgh! A whole new meaning to twist and shout. The final confrontation between LeChuck and his arch enemy was inevitable. Use the force, Luke, er sorry, Guybrush...

workable and effective procedure. Once the scene had been drawn with coloured marker pens, they overlaid certain features with paint for added force and effect. Coloured pencils were used to sharpen any soft edges before the next step. The finished artwork was then directly scanned into their computers and touched up with graphics packages and proprietary software tools. Using this method, a single background took anywhere from an afternoon to three days to complete. Lead artist Steve Purcell made sure the overall look of both *Monkey Island* games remained consistent. The end result, as I'm sure you will agree, was well worth the effort.

Not that the soundtrack's merely thrown in as an afterthought. If anything, more attention was fondly lavished on the composition and code than ever before. For this is the first game to have the spanking IMUSE to accompany it. That's Interactive Music and Sound Effects to you and me. In other words, the music score cunningly reacts to events that happen in the game to further enhance their impact. Thus, new sequences are invoked as the mood and situation of *LeChuck's Revenge* changes. Tunes follow the action with seamless ease thanks to the cooperation of programmer and composer. They determine how IMUSE will intelligently alter the raw musical data at the right time and place. Origin is the main competitor to support and develop the concept of interactive music. However, those loud Texans prefer a louder more raucous sound, as heard in the PC incarnations of *Wing Commander* and *Ultima VII*. As you would expect, IMUSE also has dynamic supervision of sound effects for doors opening, creaky floorboards, birds chirping, pianos playing, etc.

It's early days as far as the Amiga and digitised speech is still missing from the equation. Perhaps the crazy characters will speak in a CD-ROM adaption? Lucasfilm Games is already at the forefront of such enticing developments. *Loom*, the first CD-based 'talkie' game, uses the voices of actors instead of printing lines of text on the screen.

AND THERE'S MORE... Once *LeChuck's Revenge* has been completed, admirers will soon be able to sample the largest and most complex game ever published by Lucasfilm Games. Featuring over 100 pieces of original hand-painted background art, Indiana Jones And The Fate of Atlantis - not to be confused with the action game from US Gold – uses rotoscoping to make character appearance and movement more realistic. It's also the second title to have IMUSE kickin' tunes. Based on choices made early in the game, players are led down three separate paths concentrating on puzzles, action or dialogue. 'This means that players can complete the game several times enjoying a new experience each time,' reckons producer Hal Barwood, 'It's really three games in one.'

SHIVER ME TIMBERS

Thanks to a noticeable increase in awareness and sales, publishers are flooding the market with graphic adventures. In the confusion, it's difficult to choose an overall winner. Which one should you go for? *Monkey Island 2* has genuine wit and oodles of charm. Fine tuned to perfection, everything is up-front for all to see, hear and read. The story alone should keep you gripped to the very last word. By the way, there's a big surprise at the end of play. Sworn to secrecy by the oath not to reveal 'Game Over' sequences, this is all I can say.

LeChuck's Revenge is truly a masterly mix of wacky humour and stunning images. I'm a massive fan of adventures and I can honestly say that they just don't come any better than this. Unless, that is, Guybrush makes a comeback in *The Secret of Monkey Island 3*. But, until then, this will do me nicely...

buyers guide

release date	Summer 1992
genre:	graphic adventure
team:	in-house
controls:	mouse
numbers of disks:	8
number of players:	1
hard disk installable:	yes
memory:	1 meg

LUCASFILM/US GOLD £35.99

'The grandmaster of graphic adventures...'

GRAPHICS	96%
SOUND	91%
LASTABILITY	89%
PLAYABILITY	90%

OVERALL 95%


"Miss this and you will regret it forever"
"Fast just isn't the word for this 3D. The image update is blistering!"
ACE
"Anyone who has been keeping an eye out for this will not be disappointed, and should await its release with bated breath...Epic is one of the best products I have ever played - the depth of gameplay and graphics are of a truly stunning standard."
GAMES X
EPIC
"The overall feeling you get is one of awe"
ST ACTION
"The game's graphics and presentation are nothing short of stunning, and there's a great wad of playability in there too. Ocean have never had it so good!"
ST ACTION
ATARI ST
CBM AMIGA
IBM PC &
COMPATIBLES
ocean
OCEAN SOFTWARE LIMITED
6 CENTRAL STREET . MANCHESTER . M2 5NS . TEL: 061 832 6633 . FAX: 061 834 0650

the ADVENTURERS

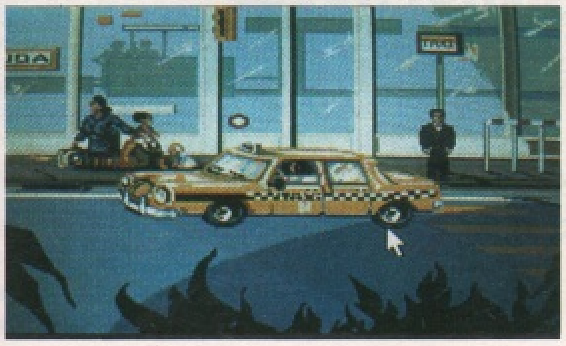
From Scott Adams to Infocom and the Zork trilogy, Rik Haynes presents the A-Z guide to...

ADAMS, SCOTT
Acknowledged as one of the founding fathers of the genre, Scott Adams created many a best-seller during his brief period of fame. Popular titles included *Spiderman* and *The Hulk*, along with the *Mysterious Island* series. Unfortunately, you need a Commodore Vic-20 , a Spectrum, or a BBC Micro to enjoy them today – and these are are rarer than the games themselves.



BEAMISH, WILLY
Not the producer of that fine Irish stout, but the latest spoof from Dynamix. Although this particular conversion was somewhat lacking, the company has promised a more refined sequel for early 1993. Using a clean 'point and click' interface enhanced by attractive backdrops and animation, the designers at Dynamix are keen to eliminate any unnecessary frustrations from adventure gaming. Also look out for *Rise Of The Dragon* and *Heart Of China* from the same team.

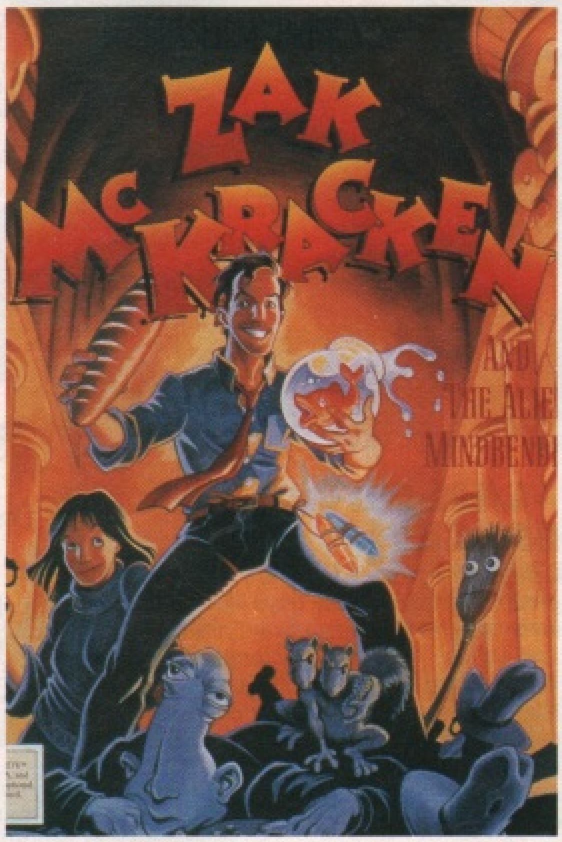
CINEMATIQUE
The engine that runs the award-winning games from French music publisher, Delphine. When Delphine entered the computer game market, few were expecting to see adventures of the calibre of *Future Wars, Operation Stealth* and *Cruise For A Corpse.* Amazing visuals and soundtracks play a very important role in these three titles (see 'New Wave').



DISK SWAPPING
A penalty paid for the lavish helpings of pictures and sounds jammed into adventures these days. If you're into this particular style of game, a hard drive is strongly recommended – and is fast becoming essential!

ELVIRA
Accolade has enjoyed some success with two RPG-orientated yarns based around the infamous 'Lady Of Late Night TV' in America. On a more traditional track, *Les Manley* is an attempt to lure the *Leisure Suit Larry* crowd with naughty bits and adult humour.

FLAMES OF FREEDOM
Breathtaking secret agent romp from Mike Singleton featuring 500,000 square miles of fractal-generated 3D terrain, 22 modes of transport and 4,000 individual personalities. Players can select the look, sex, psychologies and physical characteristics of their on-screen persona. Features arcade sections, but the cross-over works well.



GILBERT, RON
After directing the development of *Koronis Rift* on the C64, he invented the successful story-telling system used in *Maniac Mansion, Zak McKraken And The Alien Mindbenders, Indiana Jones And The Last Crusade, Loom* and all the other graphic adventures from Lucasfilm Games. Gilbert was also the project leader and creator of *The Secret Of Monkey Island* (see Lucasfilm Games).

HOBBIT, THE
Trendsetting mix of text and graphics on the C64 courtesy of Melbourne House. Throghout the game, bugs were in plentiful abundance. Luckily, though, even these created some entertainment value. A rightful classic, which was followed by a weak sequel.

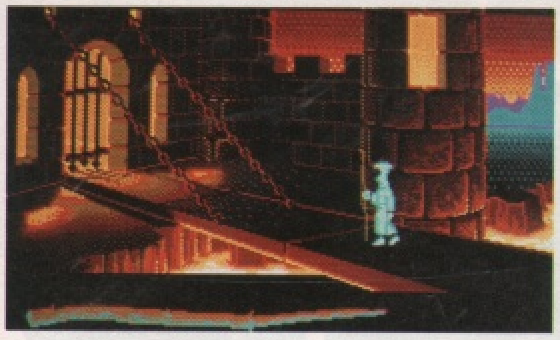
INFOCOM
Before anybody had ever heard of Delphine or *Monkey Island*, this company had a prolific output. Although productions such as *Wishbringer* and *Planetfall* were the domain of diehard fans, Infocom managed to attract the mainstream player with strange packaging and the likes of *The Leather Goddesses Of Phobos* and *Hitchhiker's Guide To The Galaxy*. *Phobos* came with a scratch 'n sniff card while the latter game was written by the book's author, Douglas Adams. Sadly, Infocom sank after merging into the ailing Mediagenic empire. Activision, now a French company, is working on a sequel to the *Phobos* (see *Zork*).

J.R.R. TOLKIEN
Thanks to companies like Interplay and Electronic Arts,Tolkein continues to find new admirers almost twenty years after his death. However, his influence on computer games extends far beyond the direct translations of *The Hobbit* and *Lord Of The Rings.* What decent hack 'em up can be seen without a fair sprinkling of elves and orcs, eh?





KING'S QUEST
Series that really put Sierra Online and graphic adventures on the map. It started way back in 1982, when Roberta Williams created the first in the series, and the rest, as they say, is history.The next instalment, *King's Quest VI*, should be released later this year with, no doubt, more Quests to follow.



LUCASFILM GAMES

While other subsidiaries created the Indiana Jones movies and special effects of Terminator 2, Lucasfilm Games also built up a reputation for quality work. Three of the best from this San Rafael firm – *Secret Of Monkey Island*, *Loom* and *Indiana Jones And The Last Crusade* – have now been converted over to the CDTV (see Gilbert, Ron). Also, a mention must go to Level 9, who produced THE best text adventures for the 8-bit machines. Games, such as *Snowball* and *The Lords Of Time*, won them a legion of fans.



MERCENARY

This space opera from Paul Woakes of Novagen has maintained a cult following ever since the original appeared on the old Atari 800 micro. *Mercenary III* is the most recent outing.

NEW WAVE

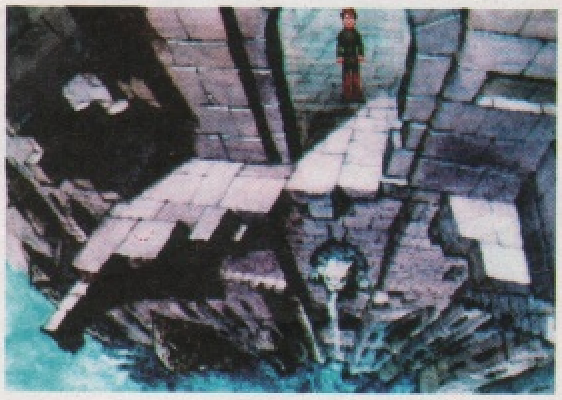
What does the future hold? Apart from the inevitable *Secret Of Monkey Island 3*, *Another World* could be an indication of things to come. Delphine's innovative use of vector graphics in this release put a new slant on the whole concept (see Cinematique).



OUT SOON

The future looks bright and toasty for people with a taste for graphic adventures. *Dune* has such an impressive score that Virgin has decided to put out a remixed version of the music on cassette and CD. Similarly, based around the Spielberg movie starring Robin Williams and Julia Roberts, Ocean's *Hook* sports over 50 locations and 30 different characters. The boys at Bullfrog are busy fiddling with the finishing touches to *Bob*. Will this be the first game to bridge the gap between 'God Sim' and graphic adventure? HR Giger, whose work on Ridley Scott's Alien movie won an academy award, has collaborated with Cyberdreams and Mirage on the forthcoming thriller *Dark Seed*. The team that brought *Hound Of The Shadow* to our computer screens is currently writing *Daughter Of The Serpents* for Millennium. With some gorgeous backdrops from Pete Lyon, Daughter incorporates an easy-to-use interface and speech bubble hypertext. Core Design, better known for *Chuck Rock* and *Thunderhawk*, is about to enter the fray with *Curse Of Enchantia*. Again, fine graphics and unpretentious control shine through.





PLAN 9 FROM OUTER SPACE

Disappointing debut for Gremlin's development group in Ireland. These guys were previously involved with the Cinemaware hits – *Defender Of The Crown*, *TV Sports Football* and *It Came From The Desert*. Considering such past successes, *Plan 9*'s lack of similarity to the film came as a massive shick – and disappointment. Rumour has it, though, that more toady B-movie licences are on their way, although firmer details on what they could be are evasive.

QUOTATION

'Adventures are to the adventurous.' Proverb

Q is also for *Quo Vadis*, one of the first arcade/adventures to appear. Released by The Edge, this C64-only game featured over 8000 screens, and the first person to complete the game would duly win a valuable sceptre – unfortunately, nobody managed it...

ROBIN HOOD

Released to coincide with the Kevin Costner film, Millennium's game was a humorous 3Der which entailed the recruitment of Merry Men and the liberating of the Sheriff's gold. Following the success of Steve Grand's first game, Millennium are preparing a more advanced titleset in the final days of the Roman empire.



SCUMM

Script Creation Utility for *Maniac Mansion*. Every adventure from Lucasfilm Games is controlled by this highly-developed tool. Basically, it allows the player to effect every action possible via to mouse clicks: one to select the action, and the other to select the object to be acted on.

TIGER MEDIA

Perhaps the first publisher to fully embrace the potential of CD-ROM, Tiger Media launched the premier Airwave Adventure for the CDTV last year. *The Case Of The Cautious Condor* was originally voted 'Best Hit Software' by LOGiN magazine in Japan. This murder mystery drama contains comic book artwork and over three hours worth of CD-quality speech, music and sound effects. Bug Byte's (original home of Matthew Smith's *Manic Miner*) *Twin Kingdom Valley* warrants a quick mention, too, as it featured the most stunning graphics ever seen in an 1984 adventure.

ULTIMA

Often dismissed as a series of straight role-playing games, the *Ultima* saga is perhaps the finest example of a fantasy adventure found on any format. Ultimate Play The Game also deserve a mention here – for *Alien 8* and *Knight Lore*, the first arcade/adventures ever.

VIRTUAL THEATRE

Could this system replace the mighty SCUMM from Lucasfilm Games? Revolution Software and Virgin Games have just launched *Lure Of The Temptress*, the first release to exploit the capabilities of Virtual Theatre. V also stands for *Valhalla*, Legend's legendary (sorry!) adventure which starred Thor, Loki and Mary Whitehouse(!).

WONDERLAND

With plenty of praise from The Guardian, Chicago Tribune and reviewers alike, this adaption of Lewis Carroll's marked the return of Magnetic Scrolls. Earlier games like *The Pawn*, *Guild OfThieves* and *Fish!* are also available from Virgin Games. Magnetic Scrolls is now developing an RPG with a working title of *Haunted*, scheduled to be published by Microprose in the near future.

XENOPHOBIA

One of the basic instincts shown by any game-player, especially the adventurer. One of the better recent adventure-related xenephobe hunts have been Gremlin's *Space Crusade*, which was was superbly atmospheric.

YELLOW BELLY

When it comes to exploring the darker regions of outer space or enchanted forests, the wise adventurer will always save their current position before taking any risks. Yeah, it frequently pays to be a coward.

ZORK

Considered to be the finest example of the humble text adventure. A classic trilogy (although there was also a fourth in the series – and a *Zork Zero*) which are now available for an irresistible budget price from Virgin Games (see Infocom). Check them out.

FOOTBALL TACTICIAN

Until now, football simulations came in two categories: arcade and management. Few, if any, ever bothered with the all-important STRATEGY which a successful manager is to master, both before a match when deciding on squad selection, and during the match when high-drama, real-time decisions must be made on tactics, substitutions, set pieces and player deployment. But now, for the first time on any major computer, there is a superlative management game that encompasses all forms of soccer strategy: it is called **FOOTBALL TACTICIAN.**
Team selection, needless to say, remains a critical element in any successful campaign: and here you will be aided with a wealth of player data, never seen in any soccer program before. Gone are the days when a player was given a single skill level. Each player is now analysed in up to 20 different aspects, enabling you to select the side best suited for the match in hand. And then to the BIG innovation of **FOOTBALL TACTICIAN:** full on-line, real-time involvement during the match! For the first time ever, you will, as a manager, be able to alter your strategy : choose a defensive or offensive system, mark certain opponents, drop back some of your players if the pressure is tough, decide exactly when substitutions should be made, play the off-side trap, go for quick counters, etc... With full on-screen commentary and minute-by-minute feed-back, you're as involved in the match as any of your players! When you further consider that this game is written in 100% machine code (unlike scores of other slow-motion offerings which are written in basic), that up to twenty two users can play this game at the same time, that accurate records are kept on all 440 players in the first division, right down to their exact market valuation, that a built-in editor allows you to change any player's or manager's name, you will realise that this is no ordinary soccer manager. THIS is the REAL THING. You're in charge. You manage your side before and during the match. Nothing is left to chance. Can you rise to the challenge? Try **FOOTBALL TACTICIAN** and prepare yourself for the ultimate football experience.

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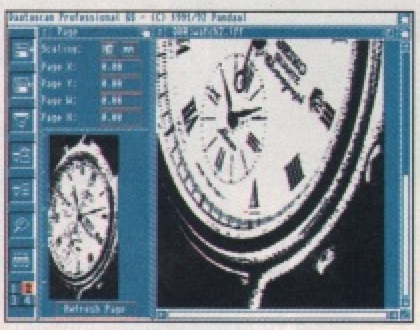
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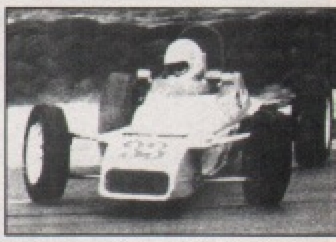
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PERFECT GENERAL

With buttons brightly polished and his cap at a quirky angle, Tony Dillon sets off for battle with UBI Soft's Barmy Army.



At the beginning of each campaign, each player is given an initial credit rating with which to buy military pieces. Further amounts of cash flow into your coffers as the game progresses.



BATTLE OF POSTCODES

Without beating around the bush, Ubisoft's *Perfect General* (*PG*) is out and out strategy. A purist's wargame, with none of the padding found in most strategy titles (flash graphics, intensely researched plot, dozens of maps and photographs, etc). In *PG*, the aim is always the same: beat the other guy senseless.

As with most wargames, the battle is won by the taking of territory, rather than the destruction of enemy units. In a real war, you wouldn't just wade in, destroy some tanks before leaving again would you? Nope, to win at *PG* you must take more towns and villages than your opponent. That's not to say that you don't have to destroy your opponent, too. Of course you do, as they are the ones stopping you from taking the towns in the first place.

Once you have worked through the comprehensive menu system – which covers options such as the intelligence of the enemy, which of the twenty or so scenarios to play, and whether to play against another human or not – you enter pre-battle mode.

HOPPING SPREE

Here you are given the chance to buy an army. The game is on a very small scale, so one tank on screen means one tank in real life. Typically, you have around 150 credits to spend, with units costing between one to ten credits each, and a unit's strength and capabilities directly related to the cost. A foot infantry, for example, is easily destroyed and not particularly powerful, and, as a result, only costs one credit, whereas a heavy tank is virtually indestructible and can wipe out major pieces quickly and easily, and costs seven credits. It's down to you how many of each unit, if any, you want to buy, and it's all dependant on your own personal strategies. If you're the sort of person who likes to launch a mass, full scale, full-frontal attack, then you'll need a few heavy tanks backed up by several dozen infantry units. If, on the other hand, you want to soften up the enemy with an aerial bombardment, you'll be more inclined to spend your defence budget on artillery and other long-range units.

Next, comes the deployment phase. Here you lay out your pieces in a predesignated area, usually on the south end of the map. Again, it's down to your own personal strategy how you place them. It's more or less at this point that you notice how user-friendly the package is. Up until this point, you'll have been using the menu system, which is the same as any other. From here, you realise that the whole game is based on a point and click system, and it's really simple to use. The basic rule is this: right mouse button selects an option and left mouse button activates. It's so simple, and it's nice to have a strategy game you can waltz into for a change.

TURN AROUND (AND FACE THE MUSIC)

The game is played in turns, and each turn is broken up into a number of phases. A phase is a segment of time within which a specific action takes place. For example, you might move all your units in a phase, or have all units fire in a phase. Having different types of unit can also change the phases you have. Thus, if you don't have any artillery units, you won't have an artillery phase, or if the enemy are out of range, you won't have a firing phase.

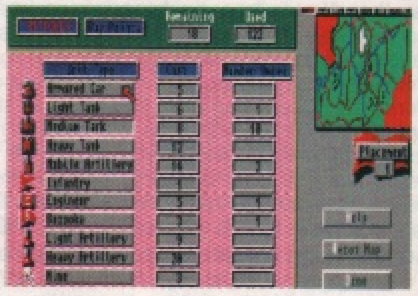
PG is very easy to play. The design is simple, which means you can concentrate on the battle with both eyes on the screen, not in the manual frantically hunting for the right command or key. It isn't the most detailed around, nor is it another *UMS*, but it's still one of the better wargames I have seen.

WAR TAKES TIME

The design of *Perfect General* has taken twelve years to perfect. It all stemmed from a boardgame tournament held over a dozen years in the United States, on a system designed by the impressively named Bruce Williams Zaccagnino. White Wolf were commissioned to create a computer game using the system which has evolved over the years into the slick design it is now.

buyers guide

release date	**June 1992**
genre:	**wargame**
team:	**White Wolf Controls**
controls:	**mouse, keyboard**
numbers of disks:	**1**
number of players:	**2**
hard disk installable:	**yes**
memory:	**any machine**









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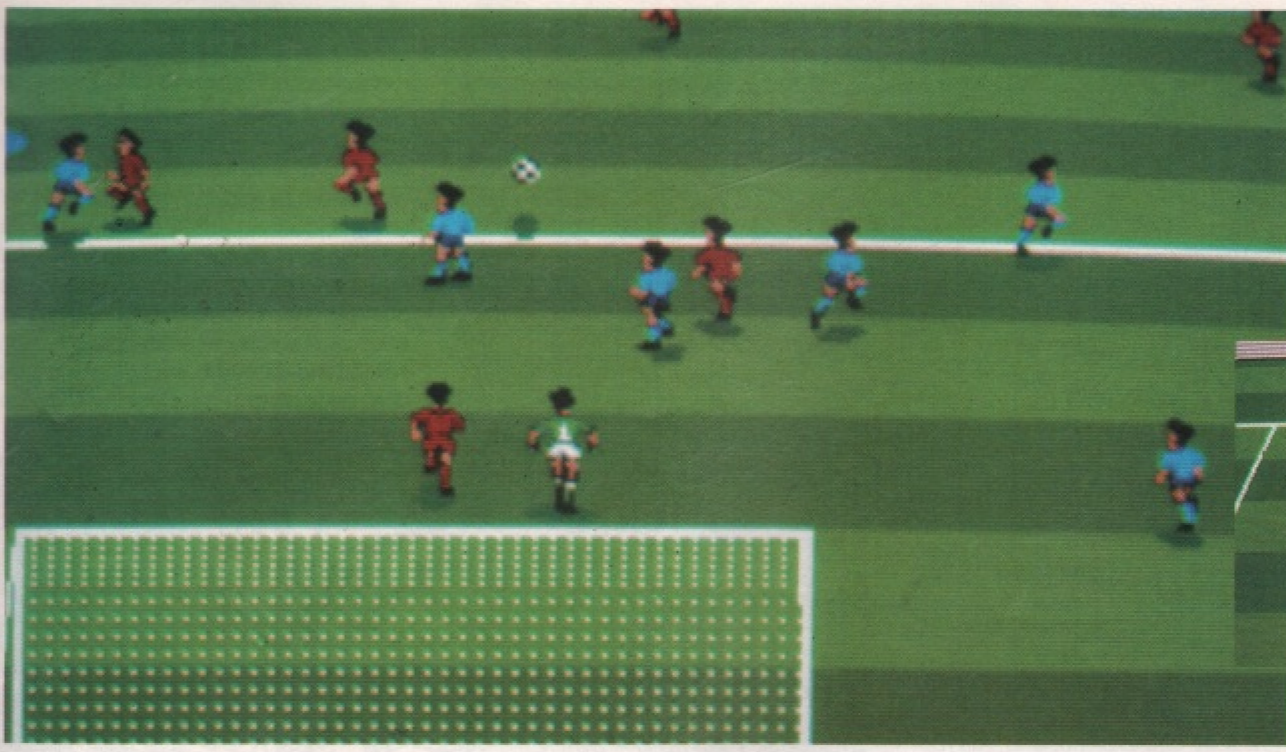
"Easy-to-use and highly absorbing wargame..."

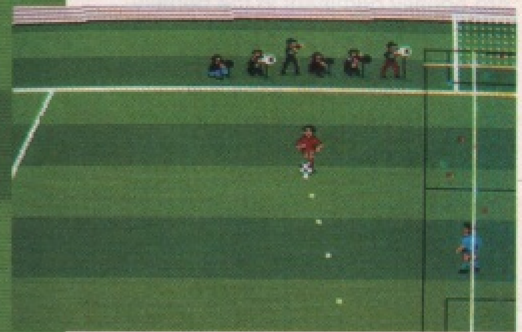
GRAPHICS	80%
SOUND	N/A
LASTABILITY	89%
PLAYABILITY	86%

OVERALL 83%



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The Final Fight
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The goalmouth action gets extremely frantic, with players diving in for headers whilst the 'keeper attempts to palm the ball clear.



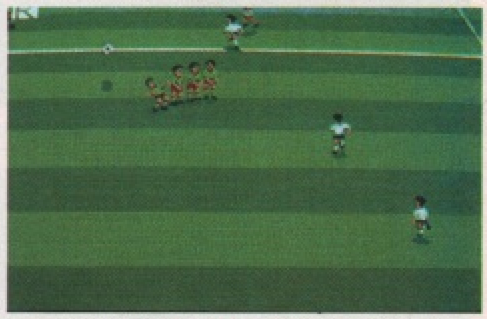
Could this be the new Football King? Steve Merrett goes for a kickabout with Liverpudlian newcomers, Rage, and meets their new Striker...

STRIKER

STIFF OPPOSITION

Let's face it, going against *Kick Off II* is an unenviable task, but at last someone has come up with a decent rival. Many reasons have been given as to why Anco's classic is so successful, but it all boils down to its pure playability. There's no way *Kick Off II* can be classified as a 'proper' simulation of the sport, as the players are minute in relation to the pitch and move at such a blistering pace that they'd leave the likes of Lineker and ol' Stanley Matthews at a stand-still – in addition, when was the last time you saw someone score from the centre spot twice in a match? However, at the end of the day its addictivity that counts – not goals – and Anco's game has stacks. However, written by ex-Special FX coders under the Liverpudlian development team's new stand-alone label, Rage offer an alternative to the perennial favourite.

On loading and the unveiling of *Striker*'s options, I felt a distinct sense of deja-vu. Set against a backdrop of digitised players, the game allows the player to alter everything from the weather conditions – including a rather silly 'gale' option which sends the ball into orbit every time it's kicked – to options for a penalty shoot-out or extra time to resolve a draw. In addition, it is also from these menus where the game's difficulty level is selected. On selecting an International match, a screen appears offering control over virtually any International side known to man. As well as old favourites, such as Brazil and Italy, smaller, lesser-known squads – including Chile and the Arab Emirates – can also be selected. The reason for such a variety of teams is that each varies in their capabilities. Whilst Brazil are experts at ball control and play a mean offensive game, the Italians are more aggressive and tend to prefer long passing moves – conversely, Malta are pretty useless in all departments. Thus, by taking control of Brazil, you're in for a fairly easy route to the Striker Cup, whereas captaining Malta or Chile will prove much ➤



The German team's free kicks are famed for KOing players in the defensive wall.

STRIKER

more of a challenge. In addition, although these features may sound vague and cosmetic, the variations between sides are startlingly apparent during play, and Brazil are incredible to watch as they whiz down the wing, whilst the Germans are equally dominant in the penalty area.

MAKING A PASS

Comparisons to the Anco game are inevitable. As Rage's players race on to the pitch and assume their formations, it's easy to dismiss *Striker* as yet another wannabe. But then the screen tilts, and everything starts to change. As the screen pans towards the centre circle for the kick off, the player nearest the ball automatically falls under your control and this is indicated by a small marker beneath his feet. From here, as the ball is passed around, the computer automatically switches control and the marker to the next nearest player. OK, so this doesn't sound particularly exciting, but its the way the screen follows the action that's so amazing. When both Red Rat and Simulmondo attempted to utilise a scrolling 3D play area in *International Soccer Challenge* and *I Play* respectively, the results were slow and confusing games with very little sense of perspective or pace. Conversely, *Striker* is probably the closest anyone has come to creating a realistic Soccer simulation which plays as fluidly and as well as Anco's classic – and most of its success can be put down to this new system.

WHOLE NEW BALLGAME

This may indeed sound like high praise, but rather than trying to emulate everything that made *Kick Off* so good as, say, Sensible have, Rage have obviously taken a good hard look at the Anco game and decided how they can expand, and, maybe even improve, on it. The aforementioned 3D slant is a brave decision, and by pulling this off, the Liverpudlian newcomers have already distanced themselves from the other league contenders. However, rather than relying on just this, the gameplay and many moves available to the player are equally well thought out and implemented. There's no way that *Kick Off II* can be classed as the perfect game – and I'm by no means knocking it – but because the whole package hangs together so well, we tend to ignore any small bugs or quirks. However, how many times have you attempted to tackle a player only to have your player miss and consequently lie on the floor for vital seconds as the opposition run rings around him – or run across his legs and earn themselves a penalty? Rage combats this, and although they can still lunge with the best of 'em, it's only when you want them to and they get up again straight after.

This may all sound a little fawning and anti-*Kick Off*, but it's not supposed to be. It's just that it isn't very often that someone actually tries something different, and when they do it deserves credit. Ocean did it



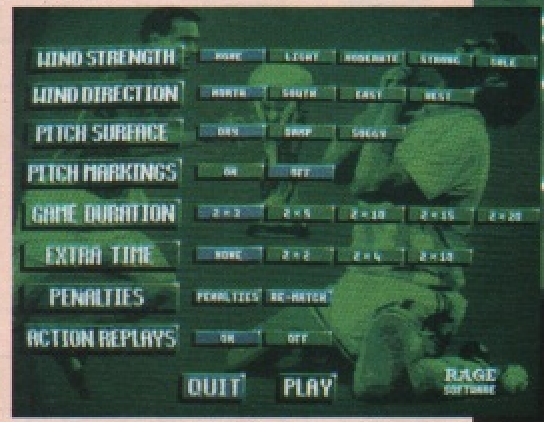


Whenever a player is fouled near the box, the opposition will automatically build a defensive wall, whilst a dotted line appears at your striker's feet. Altering the position and length of this determines the height and length of the shot, whilst holding down the firebutton increases the power.



Before play starts, select the formation best suiting your team's style of play.





Above: The option screen in all its glory. From here, weather and game conditions can be freely altered.



Above: It's bound to happen sooner or later, and whenever a player is fouled within the penalty area, the off-screen ref does his stuff and points to the spot – penalty! The screen then pans to directly in front of the goal (depending on which end of the pitch you are shooting towards), and a cursor appears allowing you to place your shot. Complete control is given over the goalie, who can consequently dive or stay put after the ball is kicked.

Also available from the pre-game menu is the choice of one of over forty international sides.



with *The Addams Family*, and, considering the limitations imposed by the sport itself, Rage's Footy sim is all the more impressive. Equally good are all the free kicks, defensive walls and corners we have come to expect. Whenever a player is sent sprawling on the outskirts of the penalty box, the referee will signal a foul and the opposition will line up to form a defensive wall between you and the goal. Your team member nearest the ball will then line up for the kick, with a dotted line detailing the line the ball will take when kicked. However, this line can be lengthened and shortened to determine the height of the shot, and it can also be moved from side to side. When satisfied with your set-up, simply hold down the firebutton to restart play. This simple system is very effective and controllable, and the same dotted line system is used for the likes of corners and throw-ins.



KICK START



As with most in the genre, *Striker* gives the player control over the team member currently nearest the ball. As soon as the ball touches the player, they can either punt it on to another player or opt to dribble it into the goal mouth. Unlike *Kick Off*'s realistic dribbling effect, though, Rage have opted for a medium between Anco's method and the ever-popular 'Velcro Boot' syndrome favoured by the likes of Krisalis. As a result, although complete control over the ball is given, it's still fairly easy to swipe the ball from a player's feet using a sliding tackle or simply by barging them.

Passing and shooting is equally simple. Ordinarily, there are only two styles of shot: hard and soft. But, depending on the way the ball is travelling and other factors, such as height and speed, a wide range of volleys, chips, and even bicycle kicks can be effected. The best thing about these, though, is that they are so natural in action. Whenever a cross is lobbed into the penalty area, for instance, the player on the receiving end won't just stick it away – they'll make a show of diving in for a header, or they'll slide in to tap it past the 'keeper. Bearing in mind that real Footy is based on reflexes and timing, this works really well.

On the downside, though, sliding tackles often result in inadvertently fouling the opposition – either resulting in a free kick or penalty. The latter simply places the player in front of the goal, with a plotting cursor used to aim the kick, but the free kick system is considerably better. Expanding on the *John Barnes*' method of sending players into the box, as your players enter the area, all you are left to do is plot the line of your shot. Using a dotted line to aim, the player can bend it past the wall (and, yes, the players making up the wall do hold their nuts in preparation) using aftertouch to add swerve. In addition, the length of time the firebutton is depressed for determines the shot's power – and your greatest goals can be repeated endlessly until your friends are bored silly...

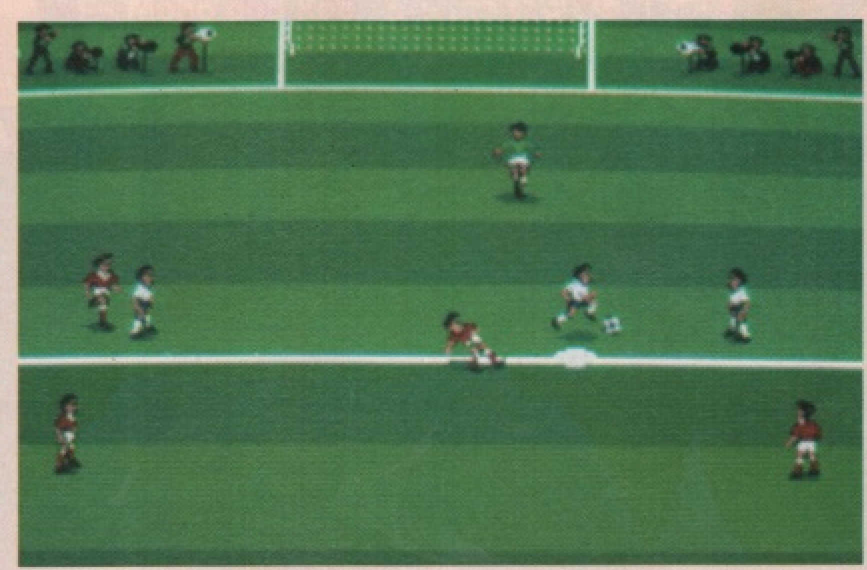
PACE YOURSELF

Because *Striker* races along so smoothly and so quickly, it's easy to take its many features for ➤







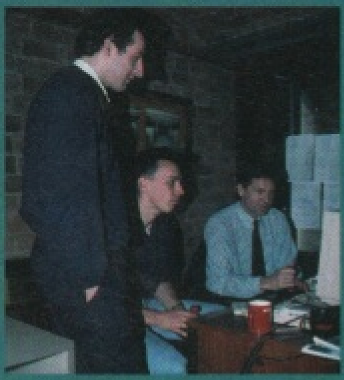


Above: The easiest way to steal the ball from your opponent is by effecting a sliding tackle. These are prompted by two succesive presses of the firebutton, whereupon the nearest player will make a lunge for the ball – or his oponent's legs.

Below: *Striker*'s goalkeepers are extremely agile and perform all manner of neat dives and catches. In addition, should they fumble a catch or the ball cannons off the post to a lurking attacker, they'll instantly get up for another attempt. They're not always perfect, but they're probably the best binary 'keepers yet.



AWAY WIN



It was a warm May Friday and the gauntlet was thrown down. 'Come on up to the office and see *Striker*,' said Rage head honcho, Paul Finnegan, to our dashing Deputy Editor, Steve Merrett. After several practice matches, another gauntlet was thrown down by way of a challenge. 'If you win this,' laughed Finnegan, 'the company is yours to keep.' Accepting, Merrett promptly sat down and tanned Paul 2-0, thus maintaining CU's considerable pride. Next up, was programmer George Christophrou who, after a surprise comeback by Merrett, was promptly stuffed 5-3. Further rematches were duly offered and subsequently won by CU's *Kick Off II* champ and answer to Gary Lineker, and Merrett eventually left with just one defeat under his belt. We're still awaiting the keys to Rage's docklands offices, though...



STRIKER

granted. For instance, after several minutes of playing and getting to grips with the fairly instinctive control method, you'll be racing up the wing and bending in crosses that Gazza would cry for. In addition, such is the flexibility of the players in your squad that it's odds-on that they'll be there ready to hit it on the volley or meet it with a diving header. One advantage of the game's large sprites is that, coupled with the neat scrolling system, they create a more realistic 'feel', and it's simply incredible to lob a short cross over to a midfield player, only to regain control in time to nod it past the 'keeper. *Kick Off* featured some classic goals, but some of the ones possible within Rage's game knock it into a cocked hat. Strangely, though, *Striker* has opted for a mixture of *Kick Off*'s dribbling system and the 'velcro boot' system, and this is bound to throw a few Anco veterans at first. It's not a bad system by any length, but it does take some getting used to and can prove rather too random when it comes to going in for tackles. That said, though, as *Striker* is more of a passing and attacking game than *Kick Off* this is only a small detraction.

So, the all-important question is: does Striker topple Kick Off II from its long-held seat at the top of the league. To be honest, no. However, what it does offer is a game up to, and in some areas surpassing, *Kick Off*'s very high standard. *Striker* plays extremely well, and offers all the moves we have come to expect but within an excellent 3D play area. The players are extremely responsive, and perform their many kicks and passes with style and ease, and the computer opponents are set to tax the player as they work their way through the many teams on offer. Although I don't feel it beats *Kick Off*, I do think that it's the best competition it's likely to have and can easily sit aside Anco's game at the top of the pile. Basically, *Striker* is the perfect complement to the Anco game, and vice versa. It has speed, addictivity and myriads of options. It's a stunning debut by Rage and all *Striker* is missing are the half-time oranges...

buyers guide

release date	June 1992
genre:	footy sim
team:	in-house
controls:	joystick
numbers of disks:	1
number of players:	1/2
hard disk installable:	no
memory:	any machine

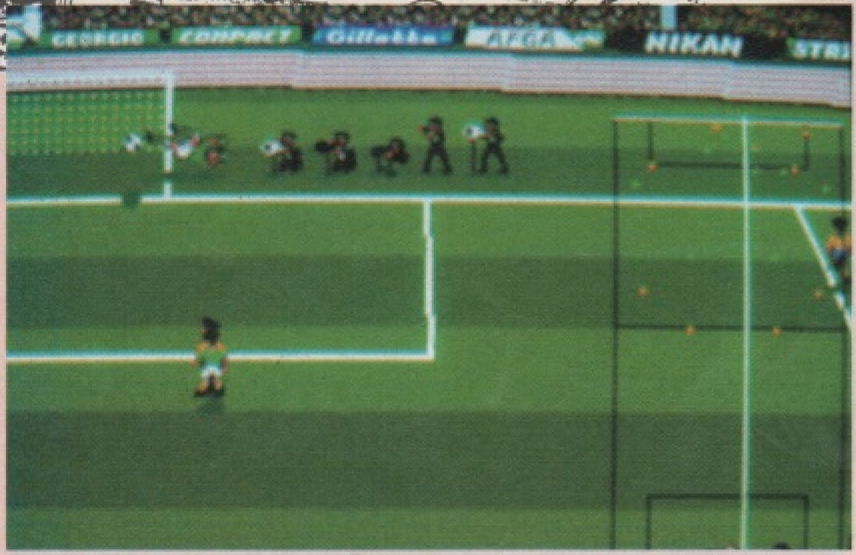


RAGE £25.99

"Footballer of the year – and no mistake..."

GRAPHICS	90%
SOUND	83%
LASTABILITY	94%
PLAYABILITY	93%

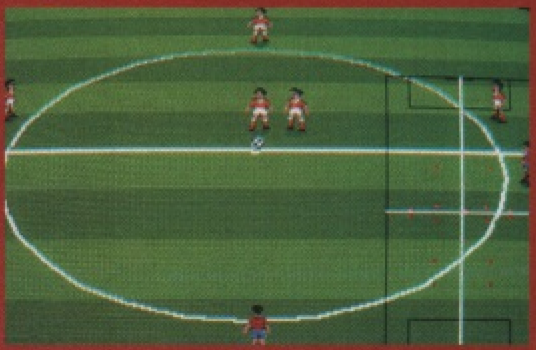
OVERALL 94%



Above: As soon as the ball is in play, a scanner appears allowing the player to plot their forward advances. Your computer-controlled team mates will automatically head towards good attacking zones, and will then gravitate towards the ball when it has been passed.

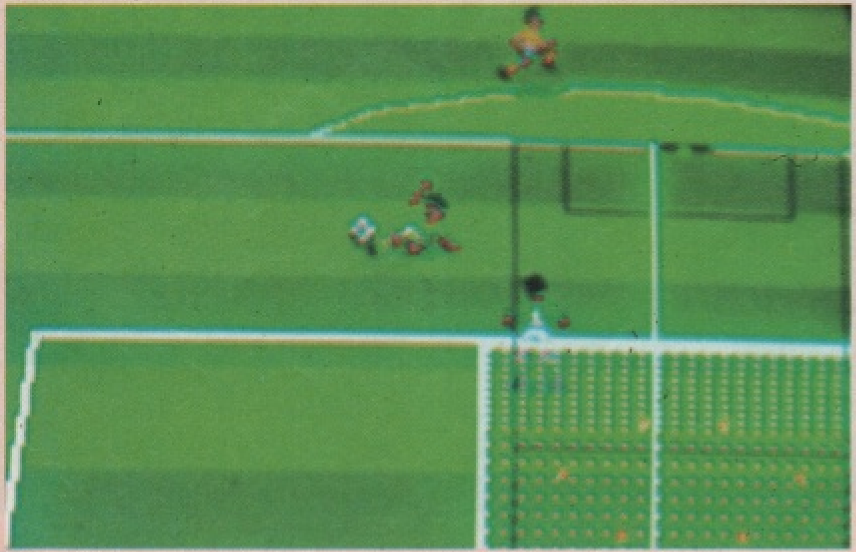
Below: When a goal is scored, they can be relived time after time, using the game's 'Action Replay' facility. In addition, this can also be slowed down in true Saint And Greavsie style.

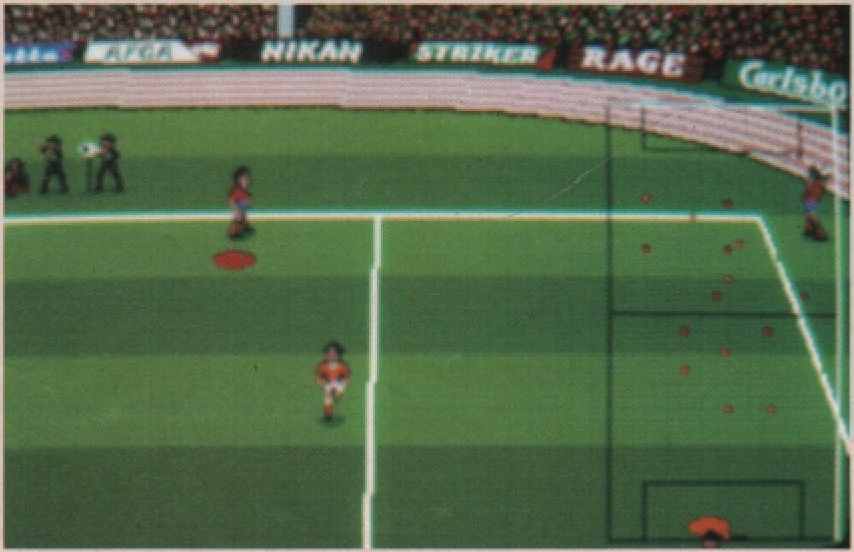
OPTIONAL EXTRAS

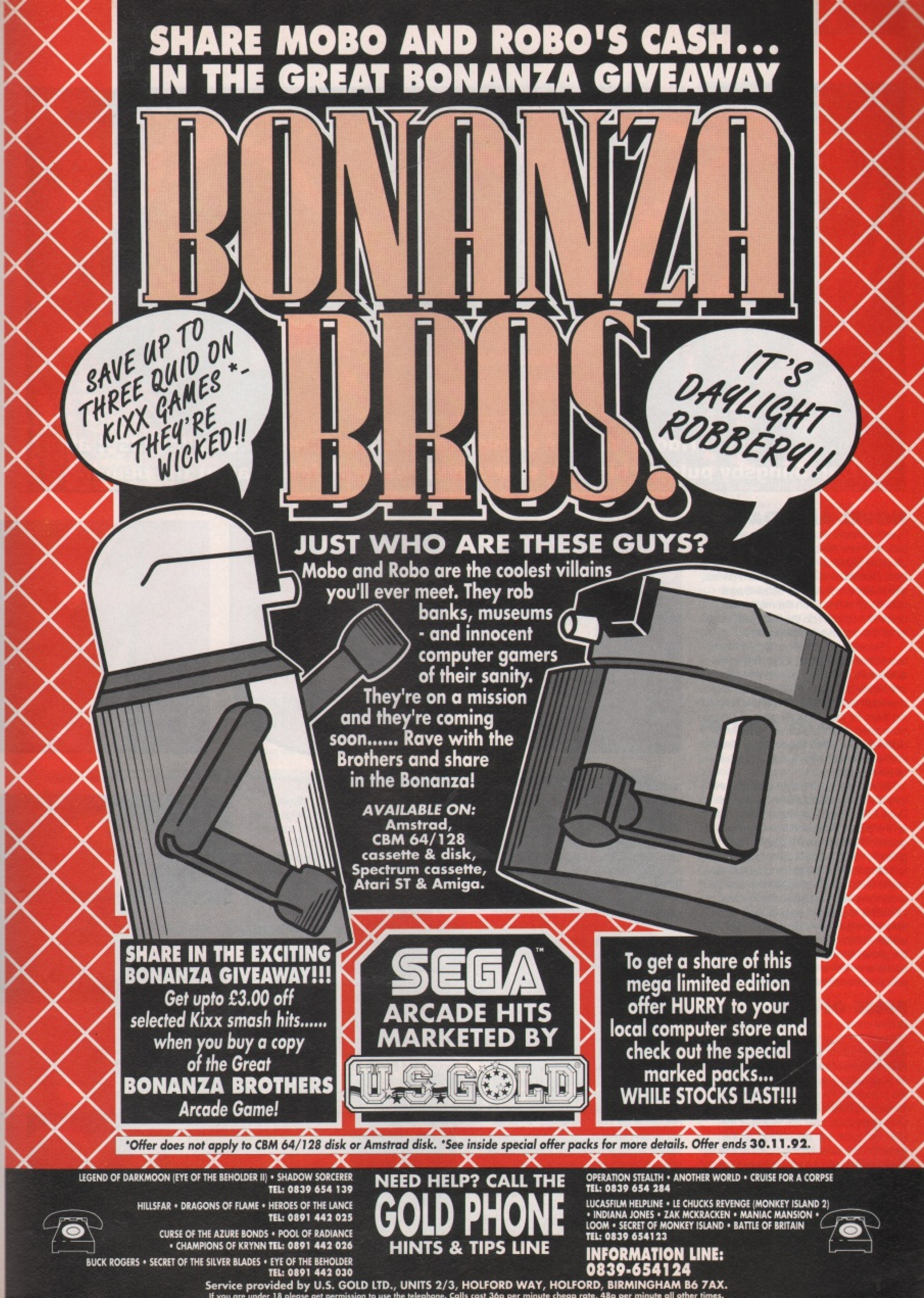


***Striker*'s options also allow the player to toggle the amount of graphical detail used. On starting the game, a full complement of centre circles and assorted markings will adorn the pitch. However, these can be switched off and this results in a slightly faster game. Although the changes aren't enormous, I found playing *Striker* a lot easier without the detail. However, for anyone experimenting with the game for the first time, they'll be advised to keep them on and benefit from the 10% reduction in speed.**

As the 'keepers are so good, the players must fox them using afterouch on every shot. Whenever the ball is kicked, the shot can be bent a little and made to swerve by keeping the firebutton depressed and moving the josytick to the side you wish to curl the ball.







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Sun, sand and serfdom. Virgin's conversion of Frank Herbert's novel has it all. Dan Slingsby puts on his loud shorts and heads off for a day at the beach.

DUN

NOVEL APPROACH

Turning a work as awe-inspiring and complex as Frank Herbert's Dune into a playable game cannot have been an easy task. Herbert's novel maintained a consistent reality which was as detailed as it was imaginative. Even the multi-million dollar film couldn't do the book justice, so what chance an adventure game?

Thankfully, the French development team behind the game, Cryo, have obviously put a great deal of time and effort into distilling the essential elements and mystique of the original novel and reworking them for the computer game. Liberties have been taken, of course, but only to dispense with some unnecessary detail and to accentuate the action and adventure elements.

In the game, the player assumes the role of Paul Atreides, the young son of Duke Leto. Your family have just arrived on the planet Dune and have been granted the right to mine Spice – the galaxy's most valuable commodity. Spice is a drug found only on Dune, and is the key to deep space navigation as well as prolonging life. Consequently, the drug is incredibly expensive and whoever controls its production holds the key to untold wealth and power. Unfortunately, much of the planet is controlled by the Harkonnen, sworn enemies of the House of Atreides, and a confrontation is inevitable.

SPICE OF LIFE

Before coming to blows, Atreides must befriend the local tribesmen – the Fremen – and enlist their help in building up sufficient stores of Spice to keep the Emperor off your back. This is effected by visiting the numerous Fremen settlements and convincing their leaders to work for you. Only three such sites are visible at the start, but more are 'discovered' as the game progresses. Mining Spice is a tricky business and you'll soon find a prospector is needed to search for the stuff as well as harvesters to collect the drug.

Most Fremen are only too glad to work for you after their mistreatment at the hands of the Harkonnen, but some resist and you'll need to cajole them into helping your efforts. Production will also drop if you fail to make frequent visits to each mine – motivation takes a nosedive, machinery begins to pack up and sabotage occurs. Spice production is an essential element of the game, as the Emperor has to receive regular supplies or he'll 'revoke' your license to mine the resource in an extremely brutal fashion. Unfortunately, the need to constantly visit individual mines to gee up the workforce is frustrating, and appears to have been added to pad out the game.

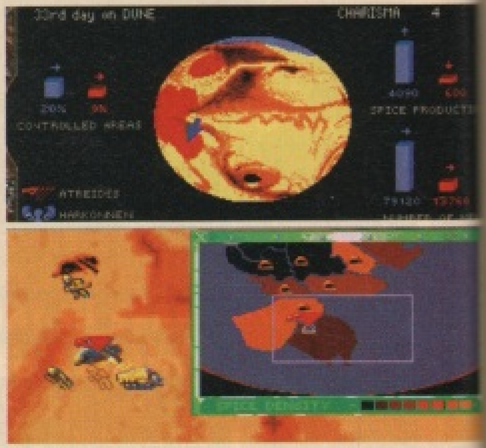
Another obstacle to production are the giant sandworms which roam the planet's surface. These huge beasts are attracted to the rhythmic vibrations of your mining equipment, and will often attack Spice harvesters, putting mines out of operation. Later in the game, the worms can be tamed and used as an alternative form of transport. Until then, though, transportation is by ornithopters (flimsy lightweight planes) or by foot. The latter method is not recommended until you've acquired a stillsuit and, even then, prolonged exposure to Dune's inhospitable climate will result in severe dehydration or death. There's an excellent animation sequence which kicks in if you've been playing in the sand for too long and shows your skin slowly receding from your skull.

TOOLING UP

Once production of Spice is underway and you've made contact with Stilgar, the Freman leader, you can begin to train an army. From here, the game starts to assume a tactical bent, as troops can be sent on spying or espionage missions against the Harkonnen fortresses. Troops need to be trained and equipped with the best weapons in order to become an effective force and, again, this takes time and can be a frustrating part of the game.

While military engagements are essential to victory, so is taking care of the planet's fragile eco-system. By helping the Fremen to reclaim the desert, the tribesmen become more motivated to your cause and the vegetation starts to overgrow Harkonnen settlements.

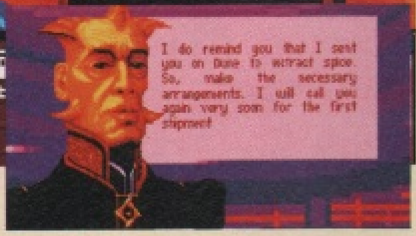
Dune can be played entirely with the mouse, but there's also a joystick and keyboard option. The main area of the



Above: **Dune's many maps help give information on Spice production, manpower levels, Harkonnen influence and Paul's charisma level. *Below*: Other maps are used to move around Dune's terrain and to find out which mines are busy in producing spice and which one's are standing idle.**



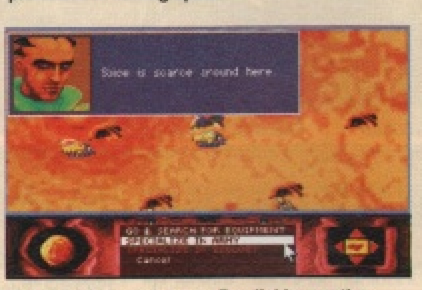




Above: Jessica can offer some useful advice, so consult her as often as you can. It's also a good idea to get her to come with you when exploring the Palace. There are many hidden rooms waiting to be discovered. *Right*: The Emperor is not a man to cross, so keep Spice production high.



After a while, a troop will become much more proficient in mining spice.



You're in the army now... By clicking on the options menu, another Fremen troop joins you.

screen is viewed through Paul's eyes, although there's also a control panel located in the bottom third of the screen. From here, all essential commands and instructions can be given at the click of a mouse button. It's a very simple system to pick up and means even the novice player can jump straight into the game without any need to consult the manual.

Several maps are also at your disposal, and these detail the various Fremen activities, Spice density and stock levels, the number of men under your control, your Charisma level (used to get what you want from the various people you'll meet), and the area of land under your control. There's also a travel map which comes into play every time you take a trip in an ornithopter which lets you choose your destination.

ALL DAY AND ALL OF THE NIGHT

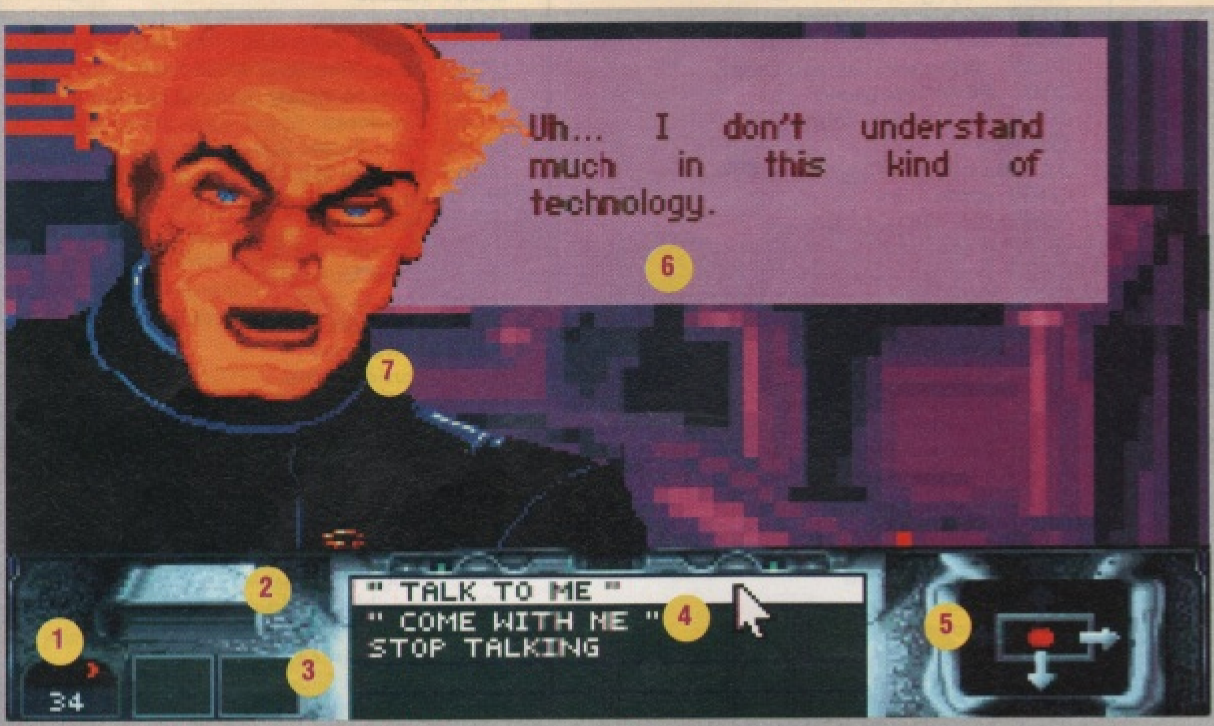
Graphically, *Dune* looks superb. The Palace, mining installations, and Harkonnen fortresses are all extremely detailed, and the game's many characters are finely rendered. The animated sequences are also highly polished. Skimming across the desert in an Ornithopter is very satisfying as the dunes flash by and the sun sets in the distance. Day and night cycles help create the passing of time and light up the sky with pale blues, crimson and dark purples – further reinforcing the alien 'feel' of the landscape.

When talking, each character's lips assume a life of their own and, although there's no digitised speech on offer, the effect is a pleasing one: Gurney Halleck, who acts as a guide for much of the game, is especially well endowed in the lips department and his name takes on an altogether new meaning as he seemingly competes for the world gurning championships such are the contortions of his rubberised lips.

Soundwise, the in-game tunes are suitable 'otherworldy', throwing up swirling scores with all manner of electronic tomfoolery thrown in for good measure.

buyers guide

release date	June 1992
genre:	Adventure
team:	Cryo
controls:	mouse
numbers of disks:	3
number of players:	1
hard disk installable:	yes
memory:	1 Mb



MAIN GAME CONTROLS EXPLAINED!
1 The Calendar. This records the number of days elapsed and the time of day is indicated by a rising sun and a falling moon.
2 The book icon. Clicking on the book icon will recap the 'story so far' and provide valuable information about the planet.
3 The two squares only come into play when you take a travelling companion. A quick check in the squares will reveal who is your current companion.
4 The options window lists the various actions available to you. Typically, these might include 'talking to people', 'taking an ornithopter' or issuing a variety of commands.
5 The movement compass indicates the four directions you can move at a particular time. If one isn't highlighted, then that's not a route you can choose.
6 Some of the interactive game text.
7 Characters appear close up when called into play.

LOOKS FAMILIAR

Anyone familiar with David Lynch's film adaption of Dune will be instantly at home with Cryo's computer adaptation. The movie's visual style has been readily plundered. The chisel-jawed features of Kyle MacLachlan (Agent Cooper in Twin Peaks) are easily recognis-



able, and even Jessica and Duke Leto look like their movie counterparts. It's a pity that the film's visual style has been used quite so rigidly as the yardstick for Cryo's game. A bit more creativity and a different interpretation of Herbert's novel would have helped give a more interesting perspective.

FROM A TO B

Adventure games are all too often a matter of doing 'A' and 'B' to reach 'C'. Such a linear approach becomes boring after a while. *Dune* succeeds because it involves a degree of strategic thinking in overcoming the Harkonnens, and there's also a number of mysteries to clear up along the way. Admittedly, parts of the game are still too linear – especially at the start – but things perk up after the first couple of hours and become much more involved.

It was never going to be easy adapting a novel of Dune's intensity and depth, but Virgin have come satisfyingly close to pulling it off. All the essential information and necessary background material is presented in an almost subliminal way, allowing the game's adventure elements to come to the fore. This one should appeal to both Dune afficianados and novices alike.

VIRGIN £TBA

" Excellent interpretation of Herbert's classic novel "

GRAPHICS	92%
SOUND	81%
LASTABILITY	70%
PLAYABILITY	88%

OVERALL 83%

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JAGUAR XJ-220

Steve Keen pulls on his asbestos underwear and climbs into the driving seat of Core Design's mean machine.

A BREED AHEAD

Lotus 2 has dominated the computer car-racing world for almost a year now. Its super-fast scrolling and realistic racing conditions made it an instant classic and has since remained unsurpassed – until now. All good things must come to an end, and Core's newest product, which is about to take to the road, is just the game to make sure that *Lotus 2* is knocked from its pole position – it was a comparison the Derby-based company were wary of, but they have certainly pulled it off with style.

Looking back at *Lotus 2* it was a relatively simple and linear affair: you simply set your options and raced. If you qualified for the next round, you could progress. This is where *Jaguar* knocks it's many rivals for six. Whilst there's not a lot you can do in terms of changing the actual on-road gamestyle, Core realised that they could still incorporate a host of new features, such as improved graphical detail, and an additional element of strategic play never seen in the genre before.



Each of the courses throws differing conditions at you, including snow, falling leaves (!), and fog. These in turn affect you car's handling and sliding on icy roads can prove very expensive – and access to the next race requires cash for the air fare.





QUALITY SOUND

Jaguar includes some great sound effects, but if you'd rather race to the sound of music the *XJ-220* comes with an excellent CD player as standard! You can choose between six tracks ranging from the melodic, to hardcore thrash for floodlit night driving. If none of those included are to your taste you can even scan the radio stations and take pot luck in what you'll find - these range from the theme tune from The A-Team to Starsky And Hutch's twangy signature tune!



SCREEN SCENE

Jaguar's racing is spread across twelve countries around the world and thirty-six tracks. The player must take his Jaguar and crew to each of the dozen countries and race against the fastest road-worthy cars the rest of the world has to offer. In addition, he must also improve his teams' ranking and position in the world tables with successive wins. Every new game starts with a lap or two in England and is accompanied by the appropriate dreary weather conditions. In each race you are pitted against twenty other cars, including Ferraris, Porsches, Lamborghinis, and Corvettes, as well as your fellow stable mates in identical Jags.

The racing screen is dotted with information vital to obtaining pole ➤

JAGUAR XJ-220

position. A counter to the top-left of the screen displays the laps remaining, whilst one to the right shows your current position in the race. Two unobtrusive bars to the bottom-left of the screen indicate fuel remaining and the current gear in use. Your speed, of which the maximum is 220 mph (hence the XJ-220's name) is displayed in the right-hand corner. For the first few races, this information – with the exception of the lap and position counters – seems irrelevant, but to rank among the highest-placed in each race, all such information must be monitored scrupulously. For instance, some bends are real back breakers and you'll need to sink into the lowest gears if they are to be safely negotiated and, although you can complete some races with just half a tank of fuel, others will require you to fill up more than once during the race, forcing you to gamble between perhaps losing a vital position and running out of gas.

The scrolling of the track and the roadside detail is superb. Every country has its individual racing conditions, including snow, rain, falling leaves, fog and others. The beauty of *Jaguar*'s effects are that, unlike other racing games, the conditions are sporadic. Snow doesn't continuously fall, it will often just be a few flakes which may later increase to blizzard proportions. The same can be said for fog, and rain actually throws up puddles here and there that affect the car's grip on the surface. All these neat extras are supported by incredibly detailed roadside formations. Rocks jut out from the edge of the road and eventually link together to form huge

buyers guide

release date	May 1992
genre:	arcade racing
team:	Core
controls:	mouse/joystick
numbers of disks:	2
number of players:	2
hard disk installable:	no
memory:	1 meg

arches to drive under. Waterfalls cascade down mountainsides, whilst fences, bollards and cones appear in the distance and follow the track like writhing snakes – a feature I can't recall having seen before. The most important thing about all this detail, however, is that for the first time in a racing game you actually feel as though you could be there – a feeling enhanced by the excellent night driving sections.

ROAD WORTHY

The Jaguar XJ-220 is primarily a commercial road vehicle and, as such, even with its racing modifications, can't withstand many knocks. During the race you will almost certainly get nudged, thumped, bumped and downright bashed from every angle and it's up to you to repair the damage at the end of your race using your winnings to pay for the repairs. A beautifully-presented screen comes up depicting the Jaguar in a semi-dissected computer-styled selection screen. Here, you must flick through the different components that make up the car piece by piece. The computer highlights the parts to be replaced in green. If the chosen piece flashes orange it is damaged, but functional, if it is red, though, it needs replacing. This is where the strategy comes in. In order to get to the assorted world destinations, it is necessary to fly both you and your car to them – this, of course, costs cash. The further you are from your required destination, the more money it's going to cost you to get there – and the less spare cash you'll have to spend on parts. Weighing the cost up between getting to an easier track or buying the latest shock absorbers can be a real predicament.

The sheer detail that's been crammed in is what sets *Jaguar XJ-220* apart from the pack. The gaggle of options, including car responsiveness, joystick or mouse control, manual and automatic gears, a data disk option and even track-editing features are a credit to Core. From the exquisite scenery to the fantastic touches of detail such as the light that reflects off the car's roof as it goes through tunnels, and the assorted spray thrown up by the back wheels is fantastic. More importantly, though, it plays as well as it looks – and that's certainly saying something. Simply the finest racing game I've seen so far and one that both Jaguar and Core can be justifiably proud of.







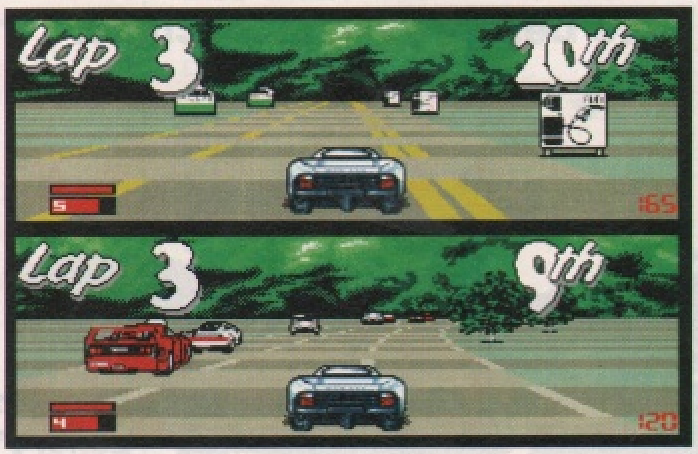
Money is the key to your globe-trotting escapades, and although you initially start with a large wad of cash, it is soon depleted.



A choice between automatic and manually-controlled gears is offered at the start of the game. Whilst the latter is a little more complex to use, it does allow for more accurate cornering.



The game is brimming with clever aesthetic touches. For instance, the roadside barriers actually follow the road around corners, and the sound effects are suitably muted when driving through tunnels.



The split-screen two-player mode was a late addition during *Jaguar*'s development, but adds a good feeling of competition as the two players race their way across Europe for the limited prize money.

BACK TRACKING If you're not content with the courses included in the game you can also create your own with the game's built-in track editor. This allows you to edit the tracks supplied or assemble one of your own from scratch, including all the details and special effects found in the game. The editor is incredibly easy to use and you may select from a library of more than fifteen objects which includes bridges, bends, gradients, barriers and waterfalls. The track is built block by block and you can scroll along it at any time to check how it's coming along, and make any necessary adjustments. The new circuit can then be saved to disk and used whenever you like.



TEETHING TROUBLE Putting together a game such as *Jaguar XJ-220* can be full of unforeseen problems. The release of the game actually coincides with the release of Jaguar's brand new £350,000 sports car of the same name. Whilst the classic sports car company worked closely with Core, the development team were told that under no circumstances were they allowed to show the car in a bad light. This even meant that the player's car didn't so much as get a single scratch during a race. No explosions, smashes, dents or smoke were allowed to be associated with their exclusive baby. The company even made the programmers include a certain quota of Jaguar billboards displaying their name and logo to line the computer course. Rather than looking like obtrusive ads, though, these keep in with the game's immaculate presentation.



CORE £25.99

" Knocks *Lotus II* from its Pole Position... "

GRAPHICS	89%
SOUND	86%
LASTABILITY	87%
PLAYABILITY	90%

OVERALL 90%

Ian Botham's

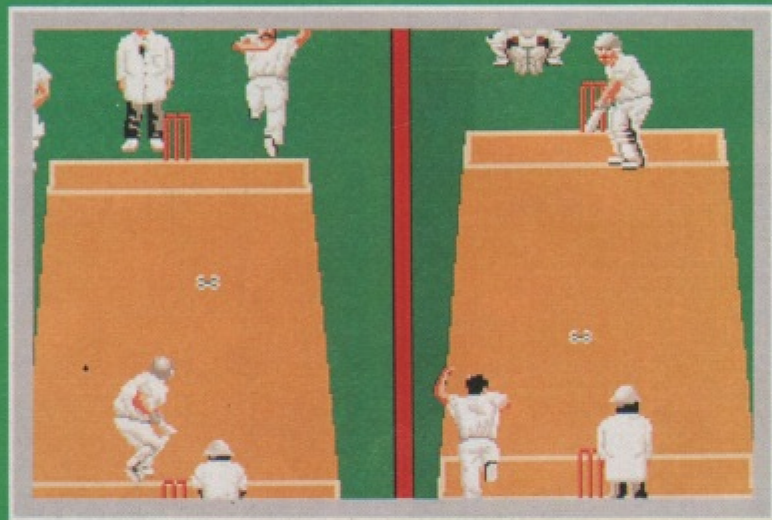
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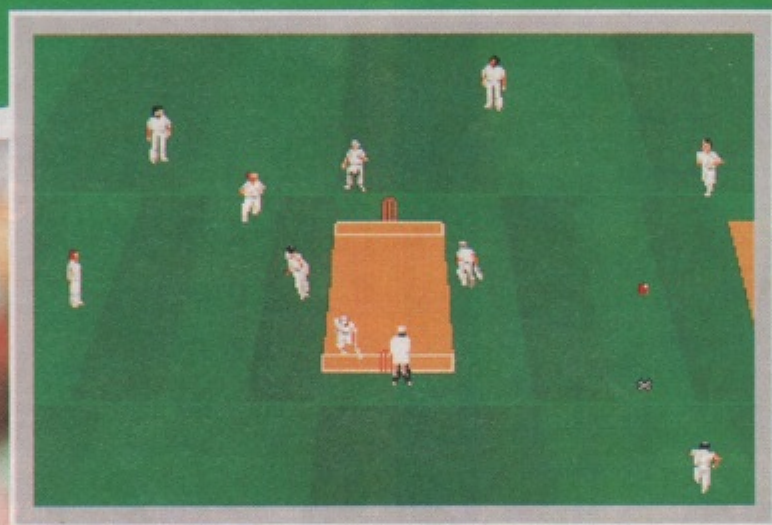
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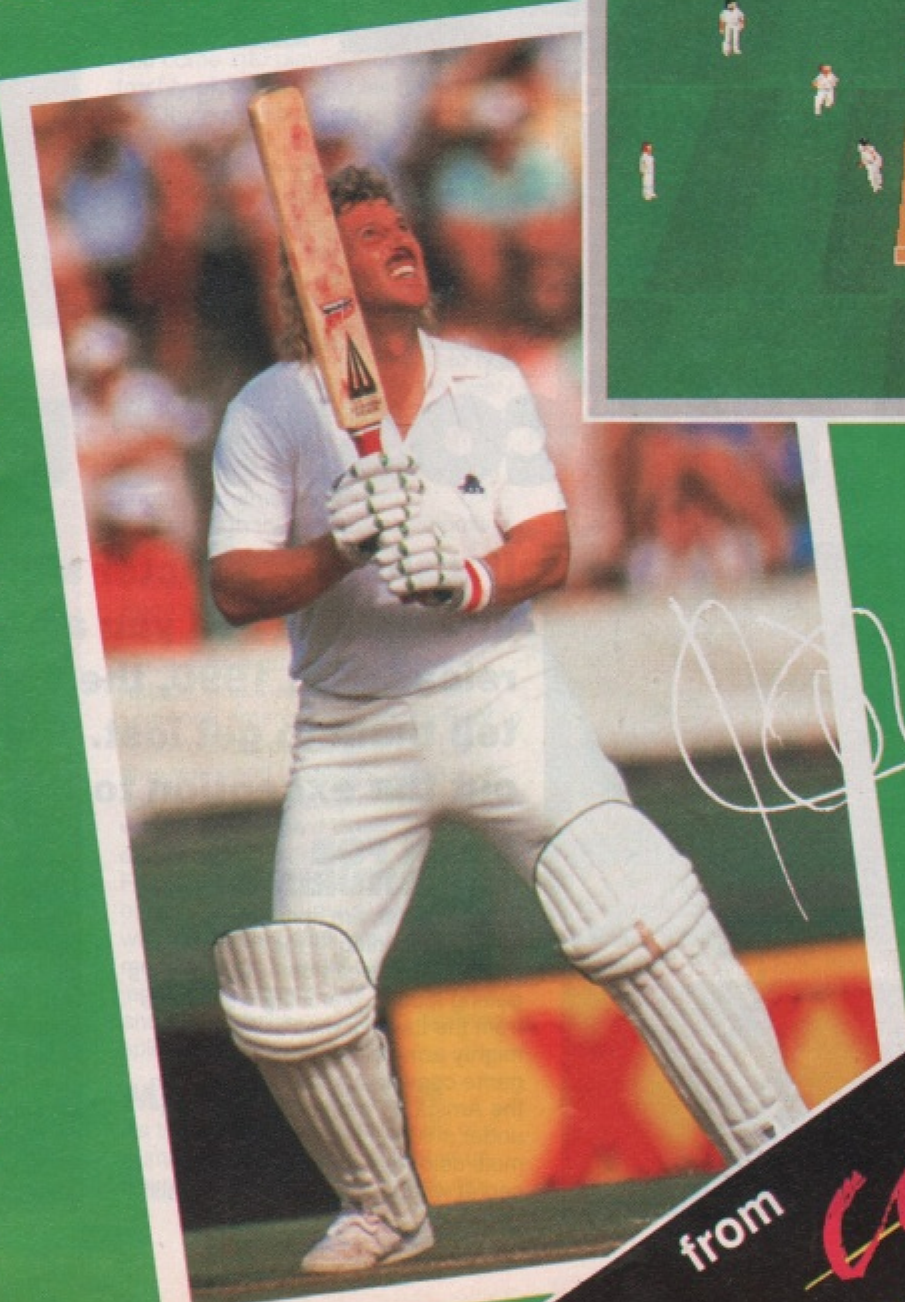
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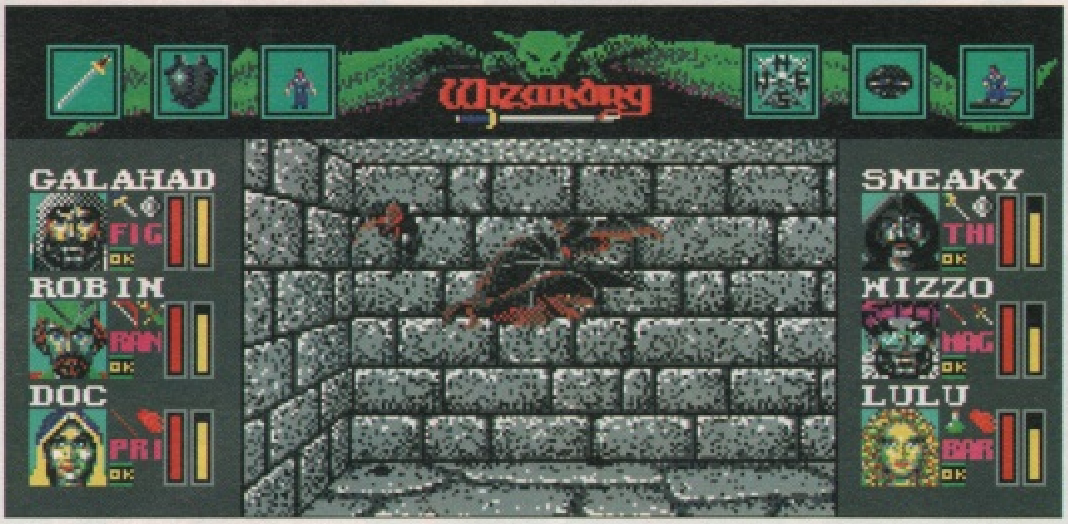


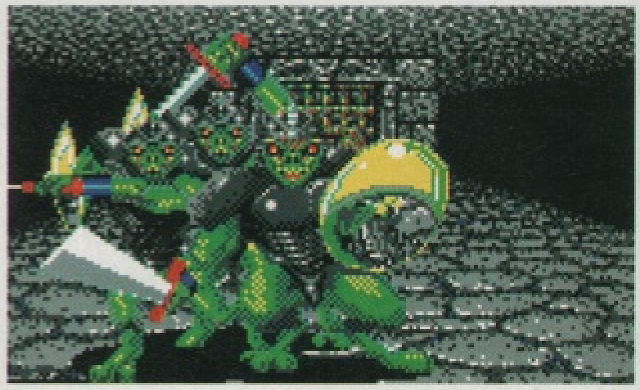
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WIZARDRY

BANE OF THE COSMIC FORGE



All the important game details are displayed around the edge of the main display, and allow the player to keep an eye on their party's health. In addition, from here, further information on your party can be summoned, including an inventory of whatever they are holding.



If a shady character sidled up to you and tried to sell you a game which was released in 1990, the chances are you'd tell them to get lost. Tony Gill checks out the exception to the rule...

A YEN FOR ADVENTURING

'The consoles are coming! The consoles are coming!' From every rooftop the cry can be heard, and it's getting louder. Marching westwards from the Land of the Rising Yen, a mighty army of cheap, super-fast game consoles is bearing down on the Amiga, threatening to drown it under a tide of leaping, beeping, multi-coloured sprites. And what secret weapon do we have to resist the likes of Mario and the rest of his wily Orientals? A seemingly dated role-playing game which, despite being two years-old, is only now making its official appearance in the U.K. But wait! Can it be true that despite the late arrival, this box of tricks can prevent us all being turned into finger-twitching zombies and save the Amiga? Who can tell, but it's sure going to have a go!

How can a role-playing game save us from the curse of the con-







Although the action sequences in *Bane* are clumsy and look primitive when compared to the likes of *Eye Of The Beholder* and its sequel, what *Bane* does have in its favour is atmosphere. Not since the immortal *Dungeon Master* appeared on the scene has a game conjured such a good feeling of claustrophobia. Let's hope that the rest of the games in the series are equally good.

soles? Basically, because its five disks come crammed with features, and it also has a depth which cannot be matched by a cartridge. *Bane* allows the player to create a team of six heroes/heroines and mould them to your satisfaction. You can name them, select their portraits, choose their race, profession, and sex. You then train them, nurture them, and eventually lead them through endless battles and cunning plots. This is the 'hook' which RPGs have – the ability to get the player involved with their own creations. If you think an arcade player looks angry when he loses his last life on level six, try sitting next to someone playing *Wizardry* when his Thief takes a fatal blow from a Vampire Bat.

PLOT DEVICE...

You may not be aware of it, but the Cosmic Forge is, in fact, the forerunner to a humble Biro. Scribble a few lines with this magical pen and whatever was written with it would eventually come true. However, it grew to be so powerful that, just as things started to get interesting, some do-gooders locked it up in a bottomless dungeon and threw away the key. They then decided that perhaps they were being a little hasty and consequently needed someone to get it back for them. This is where you come into play, along with a freshly-picked party of six heroes.

Obviously it's going to be a far from easy task, and the Dungeon is full of monsters with bad attitudes, and also equally full of mazes and traps. Luckily, not everything is against you, though. Just in case you are feeling underwhelmed about the honour of being first to step into the darkness, the game is furnished with an arsenal of 400 useful items to help you beat some respect into the over-fanged dungeon denizens. There are also a mind-numbing number of spells with which to conjure up both soothing balms and blasts.

Although the main screen looks like that other golden-oldie – *Dungeon Master* – during combat, *Bane* isn't played in real-time. Each encounter with the enemy takes place over a number of combat rounds, and these continue until someone emerges victorious. Prior to each round, you are given all the time you need to decide which course of action each of your team will take in the next clash: Thieves can hide, Wizards cast spells, and Fighters slash. Having issued your orders, the round plays automatically with the battles displayed within the main screen. The animation is a little jerky, but monsters bob and weave, and the fireballs explode in digitised splendour.

MONSTER MASH

As the enemy can be made up of a number of different monsters your team can be ordered to attack indi-

buyers guide

release date	May 1992
genre:	RPG
team:	SIR-TECH
controls:	mouse, key board
numbers of disks:	5
number of players:	1/8
hard disk installable:	yes
memory:	1 Mb

CHARACTER GENERATION

Bane is a jewel which shines brightest in the eyes of the true RPG fan, as it offers a full range of character races and professions for the player to choose from. The well-documented manual offers many easily understood examples of suitable heroes for you to choose from, listing their strengths and weaknesses. It is not essential that you pick a perfect 'A' Team, but it will double your enjoyment if you make use of the many options made available to you by this serious attempt to implement as much of the Dungeon Mythology as possible.

CHARACTER ANALYSIS

DWARF



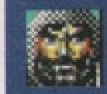
Coming from a long line of forest and cave-dwelling folk. Dwarfs also have a taste for any adventure. They are also small beings, but display a remarkable amount of strength, Their hearty stance and high vitality make them a natural for combat-related professions. Pious individuals, Dwarfs make great Priests. The Dwarf's robust body provides poison resistance while its heredity provides for magic and spell protection.

PSIONIC

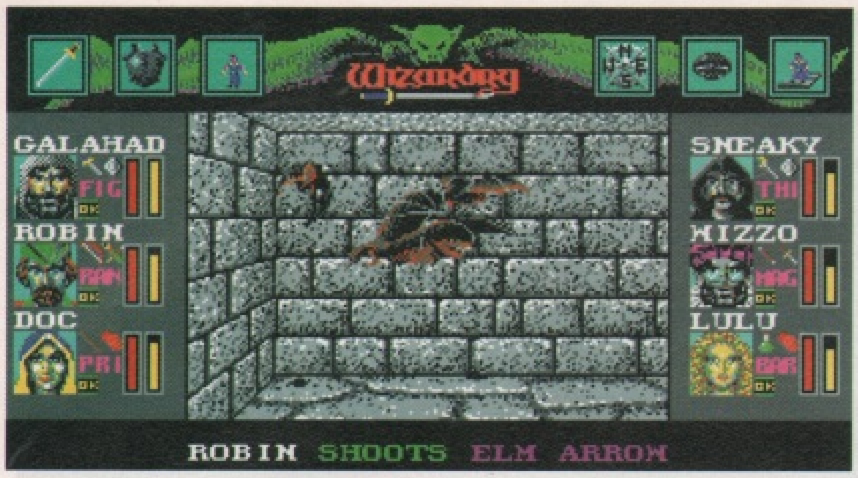


Concentrating on the wonders of the mind, the Psionic is a magic user who has developed mental powers to a level no other profession can hope to possess. Their spells have the ability to alter the mind, read it and mess about with it in general. They are both clairvoyants and divinators, who can focus all of their energies on their mental and magical abilities. Through this devotion, Psionics learn mental spells faster than any other profession.

LORD



Both an excellent fighter and a pious spellcaster. Lords are the true crusader knights of Wizardry. While their combat skills are the eir primary concern, the Lord's crusader interest in the divine Priest spells begins to develop around the third level of experience and helps to provide the party with additional healing power it may need. Whether it be inflicting the damage or healing it, Lords are a great addition to any party.



WIZARDRY
BANE OF THE COSMIC FORGE

vidual monsters which you deem the most dangerous – let's face it, you don't swat flies when you are up to your waist in crocodiles! Although the idea of planning each round seems dated compared with the real-time hack'n'slash action of, say, *Eye Of The Beholder*, it is equally exciting. Having made your decisions, you are then a helpless spectator to the results of your action, much like a general commanding his troops from the hills above a battlefield. If your whole strategy rested on your Bard singing a magical song which would immobilise the large-fanged beast in the corner while your other troops beat up his little brother, it comes as a bit of a sickener when you are told that your magical Pavarotti hit a wrong note and screwed up. All you can do then is bite your lip and hope that those fangs are not as sharp as they look.

In addition to the combat sequences, the game contains puzzles which must be solved, too. On entering some areas, a paragraph of text will appear with a description of anything magical within the room. You may also be informed of any possible traps or exits. Additionally, it's not only monsters which prowl these dank corridors, wandering peddlers with packs of goodies wander aimlessly and will sell you a new sword or a nugget of information – in addition, this system also doubles up as the game's password protection and slots in incongruously.

POINTS MAKE PRIZES

The mysteries of Armour Class and Charisma points are something of an anathema to the mainstream game player. Try using a table of statistics to illustrate how interesting a role-playing game can be, and the average punter's eyes will glaze over immediately – and rightfully so. Anyone whose soul craves excitement deserves stronger meat than columns of numbers to inflame his imagination. Happily, Bane keeps such important, but initially boring, detail in the background. It's only when you have succeeded in beating a number of monsters, and you're feeling quite pleased with yourself, that you are informed that you are now in a position to distribute any freshly-accrued bonus points amongst your victorious band. The easily manipulated menu allows you to flip through a few tables and then increase a few of your party's individual skills – more magic for a Wizard, for example. As time and victorious battles pass, you'll start to appreciate the finer detail of the game and distribute your largess to the people who will benefit the mission best. Under your growing awareness, your men's skills grow and your knowledge of their capabilities duly expands.

When creating your party of six heroes you have over 11 races of characters to choose from and more than 100 spells awaiting your perusal. Compare that with *Dungeon Master*'s 23 incantations. Whilst hardened RPG fanatics will spend valuable time building a balanced party, the novice player can ignore a lot of the 126-page booklet included with the game and choose some of the more obvious team players. However, time will show that a carefully-chosen Bard can also progress to being a clever Thief and a hard-hitting Lord may look just like a simple Fighter, but with a push in the right direction can become an essential back-up to your Priest when things get tough.

Apparently, the game's ending features a nice touch where there are multiple exits from the dungeon. Needless to say I haven't seen them yet as I'm still hacking my way through the monster's Kindergarden section on the upper levels, but I am reliably informed that one of the ways out involves a flight on a space-ship! So now you know what to do if your sleep is troubled with dreams of consoles. Stick a *Wizardry* disk into its game port and say: 'Suck on that!'

U.S. GOLD £TBA

'A deep and thoroughly absorbing RPG...'

GRAPHICS	82%
SOUND	80%
LASTABILITY	90%
PLAYABILITY	88%

OVERALL 88%

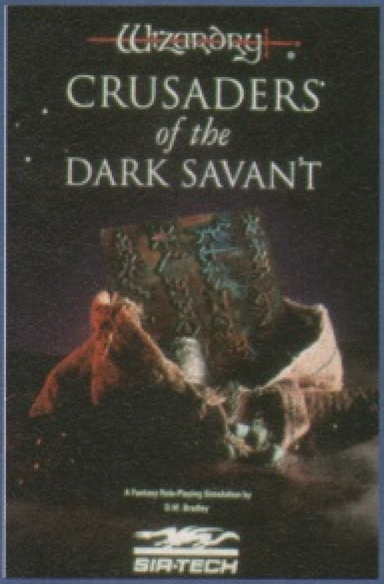
THE SIR-TECH COMPANY

The *Wizardry* series of games is the best kept secret in the British role-playing scene. The American Company's RPGs have been at the top of the sales charts in the States and Japan for years yet they have never been distributed by a U.K. pub publisher. Sir-Tech started life in 1981 with a staff of four in a six-by-nine foot space rented in a novelty manufacturer's warehouse. In small computer stores around the country, their first *Wizardry* game was hanging in plastic bags from display racks alongside word processors and spreadsheets. Hardly any games were available for the early micros – after all, many reasoned, computers weren't made for games. And so Wizardry waited. Hoping someone would notice. Ten years and two million copies later, someone had!

The series won 25 international awards before *Bane Of The Cosmic Forge* appeared. *Bane* was voted the Best Computer Game of 1991 by the readers of the UK Strategy Plus magazine. It also received the German 'Power Play Award' in 1990. Additionally, during January , February and March of this year, the Japanese edition of Bane was ranked the second best-selling computer program in Japan.

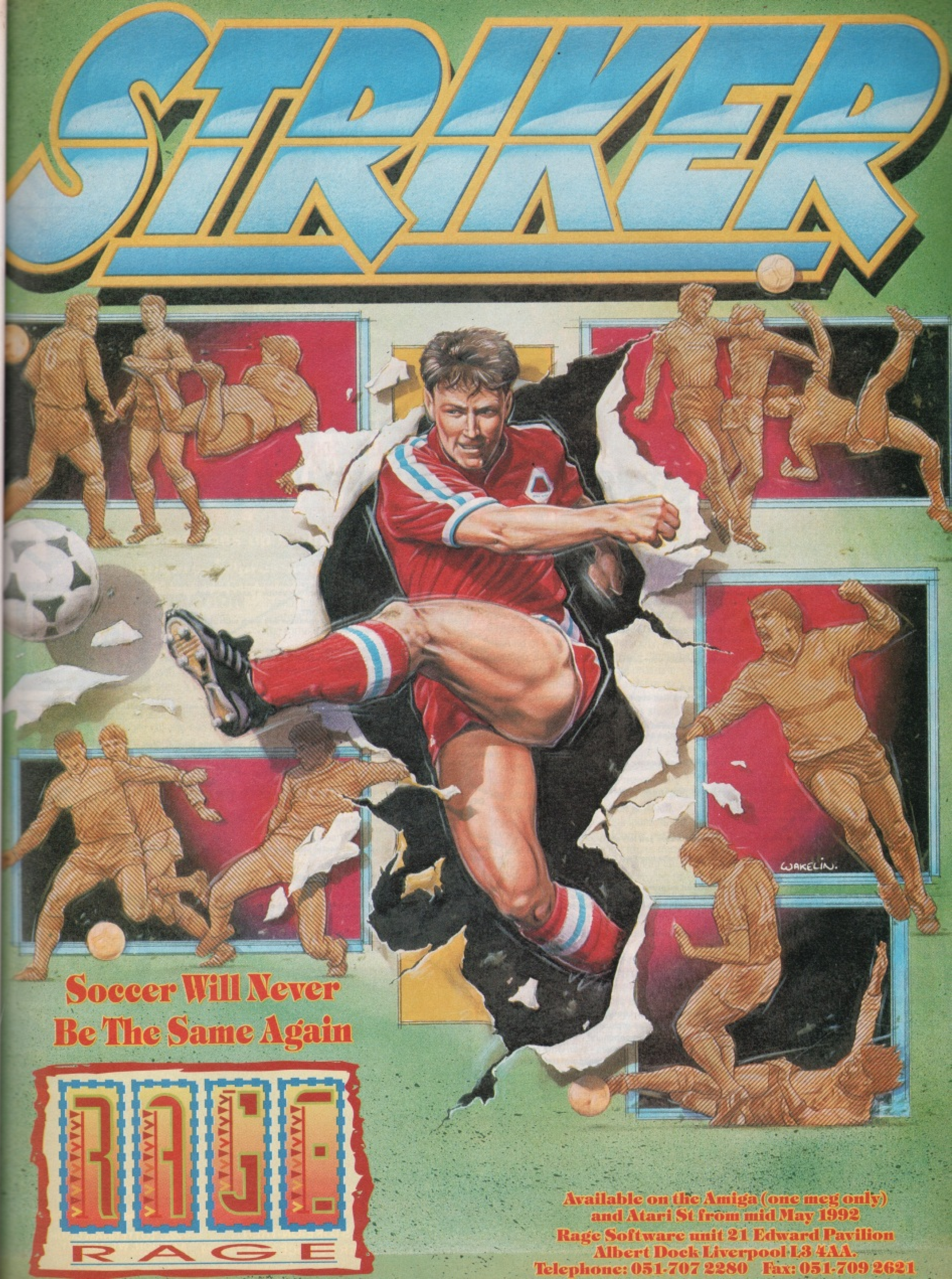
In April this year, US Gold signed a deal with Sir-Tech's Vice president Robert Sirotek which gave them the U.K. rights to distribute a number of these games including *Bane Of The Cosmic Forge, Classic Wizardry* and, more importantly, *Crusaders Of The Dark Savant*. Prior to this arrangement, the *Wizardry* games could only be obtained through a few specialist importers which meant the games were generally more expensive than those being sold in the High street.

D.W. Bradley is the author of three of the *Wizardry* titles – *Heart Of The Maelstrom*, *Bane*, and *Crusaders Of The Dark Savant*. He got into game writing by accident 10 years ago. During his musical studies someone told him about some computer software that could be used to orchestrate scores and then play them back on a computer. To enter and play his music on the University Mainframe, Bradley had to learn to program. One thing led to another, and soon programming became yet another interest. Soon, like many other computer buffs, he began taking time off to write games on the computer much to the chagrin of the University's computer staff. By, 1981 he had written his first professional game, *Parthian Kings*, a war game for the Apple micro which was published by Avalon Hills.



Following this, he joined Sir-Tech and his opening shot was the fifth in the *Wizardry* series – *Heart Of The Maelstrom*. Although it won a few industry awards, it was his next game – *Bane* – which won Bradley recognition as an author. Bradley said: 'When I'm writing a computer fantasy simulation it's like writing a book, but it offers all kinds of new possibilities as I'm not restricted by the traditional limitations. I draw my inspiration from fantasy, science fiction, detective novels, superheroes and life to weave my own tales that allow players to take part in an adventure. Having led role-playing g games I wanted to adapt them to the computer to give the player more of a sense that he was involved with the story itself, and his presence had an effect on the outcome.' Using his knowledge of computer artificial intelligence, Bradley designed *Dark Savant* to create an adventure which takes them through an interactive journey filled with all manner of characters, lands, secrets and sorrows.

Even before its release, *Crusaders Of The Dark Savant* is attracting plenty of attention from the RPG fraternity. The company is boasting that they have managed to combine the depth and intricacy of their past games with all the latest developments in sound and graphics which modern computers can handle. The game will allow the player to import his characters and their skills from the previous *Cosmic Forge* game and, their entry point in the new game will be dependent on which of the alternative exits they left the previous one. The game will be available for the Amiga in the 3rd or 4th quarter of the year. In the meantime, US Gold will be releasing Classic Wizardry, the first five games of the series – *Proving Grounds Of The Mad Overlord, Knights Of Diamonds*, Legacy *Of Llylgamyn, Return Of Werdna, Heart Of The Maelstrom*. English versions of these will be available in the next four weeks. It seems that Birmingham-based US Gold are very excited regarding their latest signing, and from what *Bane Of The Cosmic Forge* has shown us so far, they have every right to be.


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SAMURAI

Tony Dillon brushes up on his Kendo and heads for the Far East as warmongers, Impressions, unleash their latest battle...



All the relevant commands are given from a small icon panel to the bottom of the screen – a simple, but efficient system.



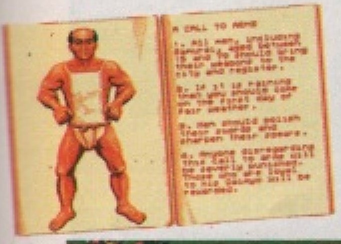
An overview of the realm you and your opponent are vying for can summoned at the click of a mousebutton, before zooming in for a closer inspection.



EASTERN ASPIRATION

Impressions used to be a fun little software house, who released spiffy little arcade titles alongside more serious strategy games. These days, however, they have become committed to releasing the best in Amiga strategy titles, a standard they have yet to fully achieve.

Although they all look wildly different, strategy games really fall into two categories. Large scale, whereby an experienced player gets to try their hand at some complicated international battles; or small scale, where the objective is local, and played more or less man for man and is generally far more manageable for the general player. *Samurai* falls into the latter and casts the player as a Japanese lord, and ruler of half an island. Your ambition is to conquer the entire island, and to do this you must go against another lord, who just happens to want the same thing.



HAVE A CROSE ROOK

The game is played on two levels. The first depicts a large map of the island, where most of the overall strategies are carried out. From here, your five cities can be viewed, as can your opponents. In addition, any mobile armies you or he may have roaming about can be located and watched, too. Clicking on the cities reveals details on how much money that particular city has, and how many soldiers are in your army – and the more money each city has, the more soldiers you can afford. This part of the game is played in turns, and here lies the first real fault with the game. Although this is an extremely important part of the program, and is integral to your continued survival, there is almost nothing to do once your armies have been created. There's something mind bogglingy tedious moving about five squares for twenty minutes...

The second level comes into play whenever two armies come into contact, whether it's through two mobile armies meeting or an army attacking a city. A close up, semi-overhead view of the battle is given, leaving you to issue orders to individual members of your army or as groups. After that, you sit and watch the battle unfold in true Impressions style (remember *Rorke's Drift*? This is virtually identical). All commands are issued from a small group of icons in the bottom right of the screen, and include such classics as retreat or surrender, and move units. The problem is, nowhere in the confusing manual does it tell you which is which. There is an illustration of the icons, and a list of commands, but their order seems to have no correlation, and I found myself doing nothing more than examining an enemy tree when I was actually trying to fire an arrow. After ten minutes of such trial and error, I managed to work it out. It isn't an overly important aspect, but it does make initial play more frustrating than is necessary.

Playing *Samurai*, I found myself getting bored rather quickly. There's no real tension and the simple game system indicates how the battle finishes before you start. Thus, most of the time combat is simply a case of watching a screen with very few men on it for five minutes.



In terms of presentation, *Samurai* is quite similar to *Rorke's Drift*. The game's battle sequences are viewed from afar, with your many warriors shown in all their cutesy glory below. Actually, the unfortunate cuteness of the sprites tends to mar the battle-worn scenario slightly.

buyers guide

release date	May 1992
genre:	strategy
team:	in-house
controls:	mouse/keyboard
numbers of disks:	2
number of players:	1/2
hard disk installable:	yes
memory:	1Mb only

SOLDIERING ON Each army is made up of seven different types of warrior. Each has different skills and, of course, the better skilled the warrior class, the more expensive they are. At the top end of the market there are mounted Samurais, who are the best fighters you can get, and the fastest unit on the map. Going down the price scale, you then pass through the ranks of gunmen and archers until you reach spearmen and basic footsoldiers. On their own, these fairly useless, but are strong in numbers – like accountants in the pub on a Friday night.

CUTE SPRITES

Whilst on the subject of little men, the graphics are actually quite good for the most part. There are stacks of Eastern stills which pop up whenever something important is happening. Sadly, though, the sprites look a little cute and, as a result, out of place in the hardened battle scenarios.

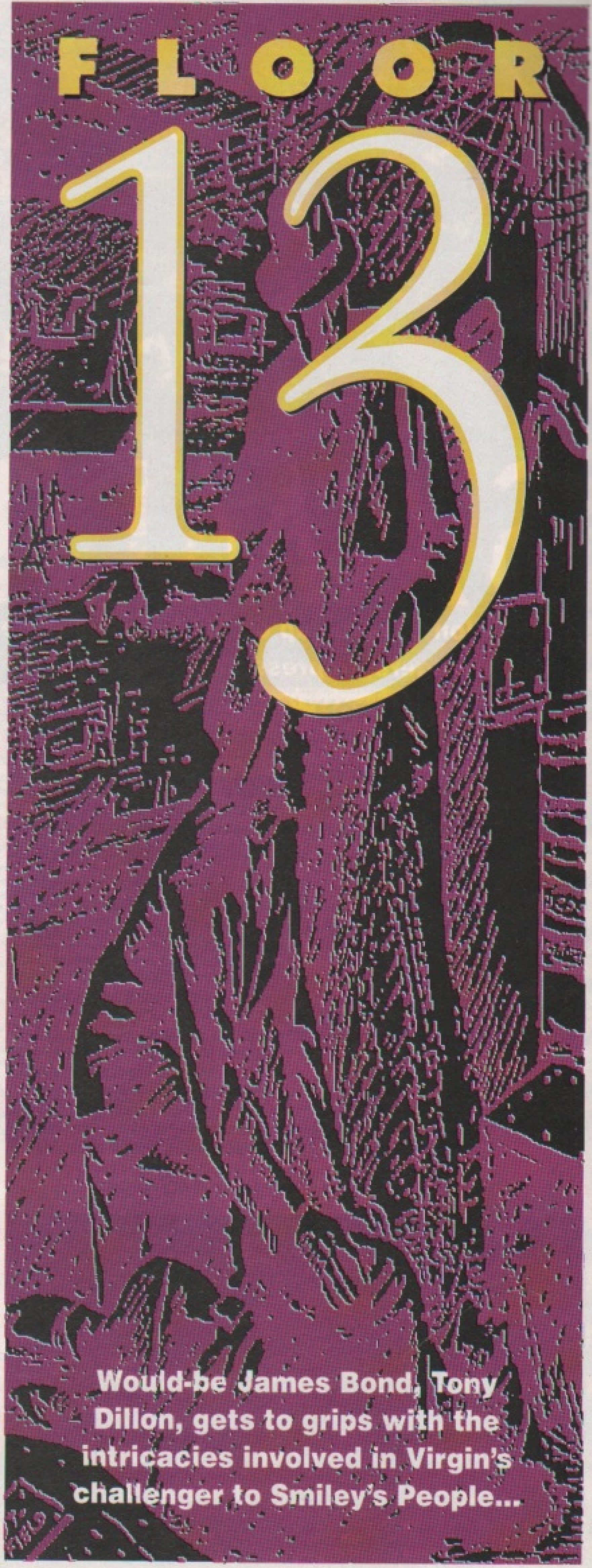
The biggest problem *Samurai* has is that it's a very simple game laid out in an overcomplicated way. There is nothing new here, and what there is has been done a million times better before. It's by no means terrible, just very bog standard in design, and only just saved from mediocrity by some attractive presentation.

IMPRESSIONS £25.99

“A simple wargame that's too much work to get into...”

GRAPHICS	81%
SOUND	69%
LASTABILITY	70%
PLAYABILITY	61%

OVERALL 63%



FLOOR 13

Would-be James Bond, Tony Dillon, gets to grips with the intricacies involved in Virgin's challenger to Smiley's People...

SPIES LIKE US

Have you ever thought that the present government might be doing a lot more than you realise? That the large but mysterious body that runs the country might be pulling all sorts of dirty tricks, whilst simultaneously pulling the wool over your eyes? According to Virgin, it's a vicious reality – and all this is made possible by a secret organisation based on the 13th floor of a docklands building. Welcome to *Floor 13*.

YOUR NEW POSITION

As the new Director General of an official group which doesn't officially exist, your job is to nip all politically-damaging news in the bud. To do this, you must find out what's going on, and stop as much of it as possible from getting into the papers. This is not as easy as it sounds.

As the group is so secret, you don't actually know anyone else who works in your team – even your secretary is just a robotic voice. All communications between you and the outside world is through a constant flow of paperwork, and from this you have to keep the present government ahead in the polls for a year.

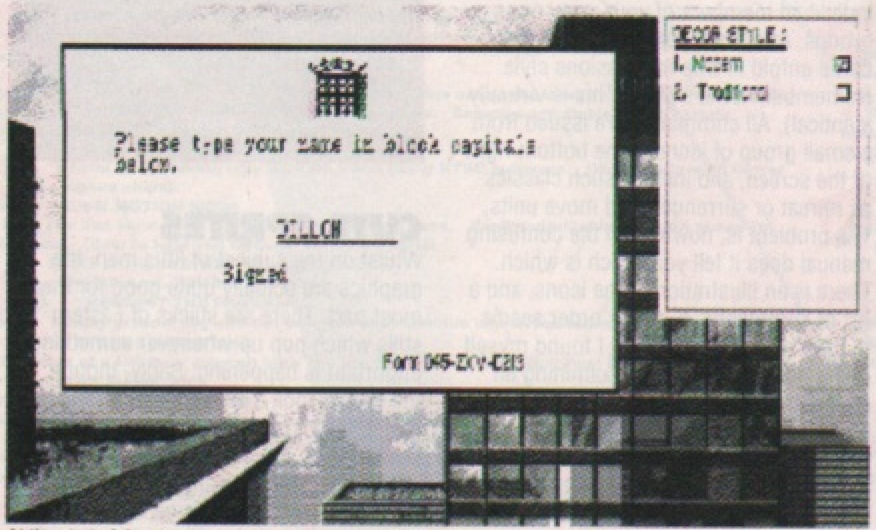
Your group consists of yourself and eight departments, all of whom are dedicated to certain objectives, including searching property, interrogation, and even assassination. You are given a limited amount of resources, and a very limited flow of information; thus making the right decision is crucial. In addition, you don't actually perform the actions yourself, so butcher-mongers should look elsewhere for their thrills. All you do is draw up and sign orders, which can take a couple of days to process – but that's bureaucracy for you. The wrong order can have disasterous consequences, even to the extent of a prominent government figure being gunned down in public by a known government employee.

THE PLOT THICKENS

As you pass through the year, you pass through dozens of sub-plots, pairs of which run concurrently. Plots include known anti-government supporters threatening to leak papers, or terrorist groups planning strikes on major power bases. All this has to be kept a secret from Joe Public.

Although the government is the focus of the game, little is said of them. Policies aren't mentioned at all, and neither is their political leaning. The way the system works is extremely intricate. In the morning, upon entering your office, you may receive a news report saying that a major government minister is to resign for undisclosed reasons. On the same morning, you may also open a letter informing you of a new nuclear submarine. Your initial thought may then be that the two are connected in some way, but this isn't always the case.

The first thing you need to find out is why the minister is quitting. For this, you must place him under surveillance and scour his house for clues. After a couple of days, your search team return to you with a letter they found in the house revealing, for example, that the minister is having an affair. A phone-tapped message from the surveillance team reveals an early morning phone call with the suspect leaving the house soon after. Posting a pursuit team to watch his moves through the city, may then reveal it's a jealous rival sending the letters. Problem solved.



At the start of the game, you have to sign a contract. This binds you to complete secrecy regarding the convuluted goings-on you will oversee. Remember, the conditions can't be broken.



Every morning you'll be greeted by the robotic voice of your synthetic secretary, always there with a smile and a beep.

DEPARTMENT STORES

You have eight departments working under you, and these are the people who do all your dirty work. Surveillance teams park outside a requested destination and report all sightings. Pursuit teams follow a suspect. Search teams hunt locations for clues and infiltration teams attempt to join political groups. Then you get down to the fun guys. Interrogation units beat suspects into submission; removal units assassinate; heavy assault groups heavily assault people and dis-informers. Best of all, though, are the agents who whisper false rumours to the press to discredit people. These are the tools of your trade, and learning to use them well is the key to winning.



OR YOU COULD...

That's how a plot is built up and consequently solved, but there are many others. For example, if you find any details on the missile at the minister's house, you can assume that he had something to do with it, and you could then kill him so he can go no further with the plot.

If this got into the papers, though, it could have serious political implications. The plots are very subtle – so subtle, in fact, that often it doesn't become apparent for quite some time what is actually going on. You are only fed small amounts of info at a time, but sometimes this is enough. One of the joys of playing *Floor 13* is the sudden realisation of what to do to solve each problem.

The year is broken up into three week segments, at the end of which you have to be ahead in the polls or the ficticious Prime Minister will have you killed. In fact, he keeps popping up here and there to offer his opinion of how well you are doing. If your dirty work gets into the papers – a report on someone being killed in a messy way, for example – he won't be pleased. If this happens too often, then you'll find yourself plummeting from the 13th floor window, just like your predecessor. Richard Branson was his name, apparently.



If that isn't enough, you are also part of a Masonic group. At the start of the year, you are a mere acolyte, but at various points throughout the game, the grand wizard will appear and give you certain quests, such as protecting an individual or group – whether you have to do these with your left trouser leg rolled up though is left undisclosed. These tasks, when completed, will enable you to progress through the ranks of Masons, but won't make much difference to the rest of the game

buyers guide

release date	**May 1992**
genre:	**strategy**
team:	**PSI**
controls:	**keyboard**
numbers of disks:	**4**
number of players:	**1**
hard disk installable:	**yes**
memory:	**512K**

MENUS

The entire game is menu driven, with the many instruction boxes appearing in the top right of the screen. All menus are placed in a hierarchy, with all basic options stemming down to more precise orders. For example, opening the suspect file shows you all available suspects, and will also reveal another menu allowing you to look at a different suspect's file or issue orders. Selecting the orders menu then unveils a list of available directives.

The game breaks a couple of traditions, one of which is that all the graphics are monochromatic. At first glance, this may appear a little dull, but, strangely enough, it adds a lot to the game's atmosphere. I seem to remember an old C64 spy sim called *The Fourth Protocol*, and that, too, used functional colours. It's an effect that works well, and mirrors the blandness of office life whilst retaining the undercurrents of pressure and secrecy. The other unusual feature is that the game is keyboard-controlled. Again, though, the reason is simple. As the entire game is run from menus, all options can be just as easily accessed by cursor keys or the appropriate number keys, and minimises the possibility of choosing the wrong option.

Playing *Floor 13* is an experience to be savoured. The game is rich in atmosphere and suspense, and waiting to see the results of each action is but one of the reasons to play it into the dawn hours. I can't remember a clue solving game of this calibre, and *Floor* will go down as one of my favourite games of all time.

CU AMIGA SCREENSTAR

VIRGIN £25.99

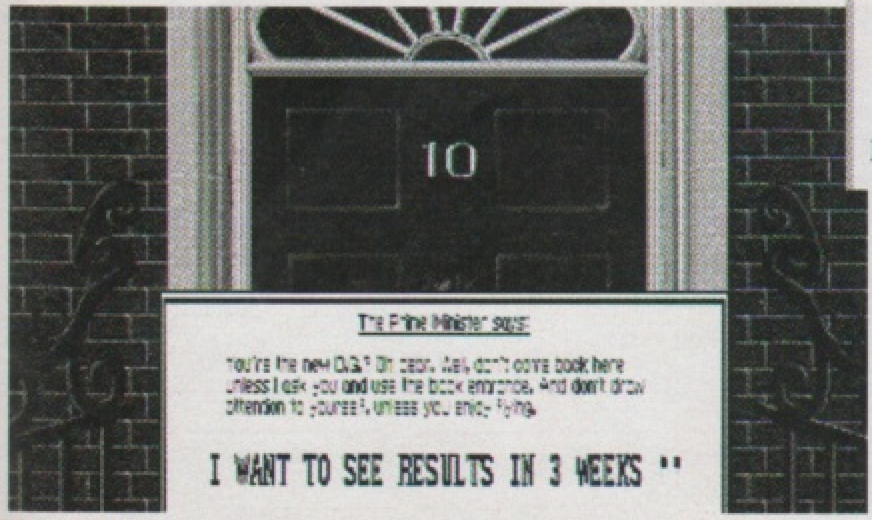
"Clue solving strategy at its brain-straining best!"

GRAPHICS	86%
SOUND	N/A
LASTABILITY	90%
PLAYABILITY	91%

OVERALL 87%



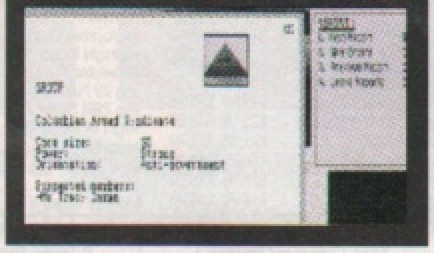
The Grand Wizard of your masonic group. He requests the odd favour, and doing as he asks will see your rapid promotion with the lodge.

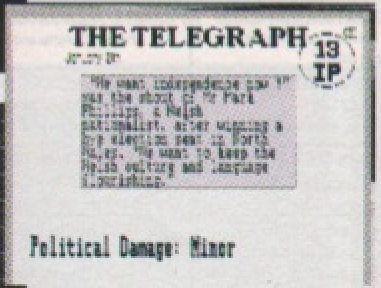


The Prime Minister will occasionally want to see you, either to commend you on your work or, more likely, to shout at you for messing up.

A SUSPECT SUSPECT

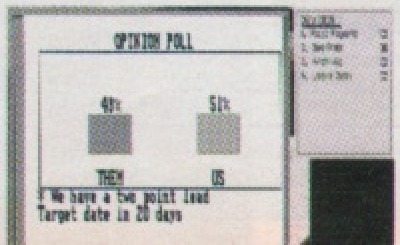
All groups and characters in the game have files like this one, and inform you exactly who they are, where they live, their position and public prominence, as well as their place in any of the problems you are trying to solve.





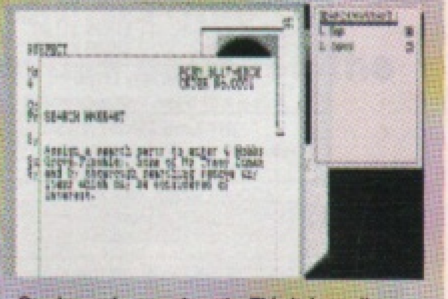
You receive regular news updates on the rest of the world every morning. You have to discover their importance.

The polls let you see at a glance where you are in the public eye. Try to keep that lead as strong as possible.

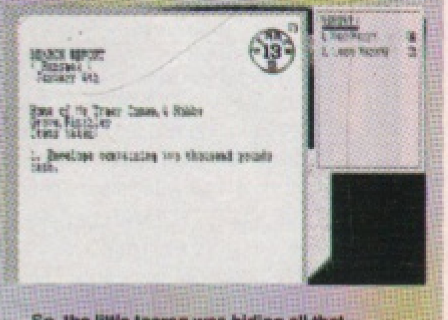




This woman has been causing a little trouble. But you can't pin anything on her without evidence, so why not...



... Send round a search party. This is how all orders are given. Select the option from the menu, and then sign the form when presented with it.



... So, the little toerag was hiding all that money,was she. I wonder what she intends to do with it?

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lure of the TEMPTRESS

Like the Heaven 17 song goes, it's time for a shakedown. Can the Brits give Lucasfilm, Sierra and Delphine a taste of high adventure? Rik Haynes believes the first release from Revolution Software could lead us all into temptation...

ADVENTURE OF A LIFETIME

Judging by the number of publishers jumping on the bandwagon, this will be the year of the graphic adventure. As the genre grows ever more sophisticated, the catch-phrase 'interactive movie' keeps coming back to the lips of pundits and marketing folk alike. It's therefore hard to believe that the software industry's new Hollywood could be situated in Hull instead of California.

Anyway, Revolution Software prefers to liken *Lure Of The Temptress* to a pioneering form of participation play. Hence the term, used to describe the game's control system – Virtual Theatre. What does this mean in plain language? According to boss, Charles Cecil, it's an attempt to convey an environment where characters sensibly behave independent of the person directly controlled by the player. In the case of *Lure Of The Temptress*, there are roughly thirty characters happily doing their own thing. You can chat to anybody at anytime. What you say, usually chosen from a selection of three or four sentences, will then affect the way that particular character will react to you from then on.

Featuring one of the easiest and most intuitive player interfaces around, everything in *Lure* – from walking to talking – is easily activated by the mouse. Commands like 'get bottle' or 'use knife' are implemented by pointing at the object then selecting the desired action from the menu that pops up. More importantly, you can ask other characters to perform such tasks. A complete sequence of actions can be constructed with little effort, and an instruction such as 'go to the torture chamber and get key and then give bottle to the guard' merely takes a few clicks of the button. This is where Virtual Theatre scores over the systems used in *The Secret Of Monkey Island* and other popular adventures.

The game's scenario is pure Tolkien fantasy. Does it take itself too seriously? Erm, frequently. Assuming the role of Diermot, an unwilling hero, the player must defeat an army of grotesque creatures called the Skorls. When they're not beating up defenseless peasants, these lizard-like louts can be found overindulging their appetite for wine, women and song. Some people may be surprised by the dark mood underlying this classic fairy tale of good versus evil. A novel twist is also promised at the end of the game but I've been sworn to secrecy. These are probably the signs of Dave Gibbons' influence on the design of this project. Gibbons is a famous writer/artist who co-produced the successful Watchmen graphic novel. His son Daniel is a real Amiga fan and this fuelled Dave's interest in computer games, particularly graphic adventures. Should Revolution Software use the label Virtual Comic?

LET THE QUEST BEGIN

Diermont finds himself in humble surroundings at the start of play. A dungeon, in fact. After a quick escape, it's not long before the amateur jester, Ratpouch, is rescued and we're then treated to a Black Adder-style relationship between master and servant. Although he's smelly and tells bad jokes, Ratpouch can occasionally provide a cunning plan and is prepared to run errands for Diermont. There's an ample supply of progressively difficult jobs for the two of them to complete, so don't expect a free ride through some tasty-looking screens. This is just a fringe benefit.

The first puzzles are rudimentary exercises to get you into the method ➤





The world of *Lure* is full of interesting puzzles which must be solved in a sequential order. Although the puzzles are linear in their progression, though, they still offer an excellent challenge.





Moving from the dungeon starting point, your Baldrick-style ally, Ratpouch, is soon recruited and the avdventure can begin – starting by trawling the pubs is a good idea...

lure of the TEMPTRESS

of control. These challenges become a lot tougher and, in the dragon's cavern domain, seemingly impossible. As any self-respecting Vulcan would say, remember to apply plenty of logical thinking and you won't go far wrong. With roughly sixty different rooms and scenes to visit, Cecil reckons there is easily forty hours worth of adventuring ahead.

SWEET HARMONY

Every little bit of authenticity and outright goofiness helps to extend the illusion. On my first journey to the local village, I couldn't stop thinking of those cheesy low budget films from the Hammer stable. No doubt it was triggered by the rich dialogue bandied in the tavern and the feeling of something nasty lurking around the next corner. Or was it the look of the mock medieval buildings and people? If the player cares about what happens to the characters inside this artificial world, the entertainment value and longevity of the product dramatically increases.

Cecil and the gang are to be commended for their decision to fully utilise the capabilities of the Amiga. Unlike many games from America, this isn't a pale imitation of an IBM PC version. The proper implementation of 32-colours and sampled sound make a striking difference. Graphic designers Adam Tween and Stephen Oades have done their job well. The sprites were created by Paul Docherty, an artist best known for his work on the C64, whilst David Sykes and Tony Warriner were in charge of the coding. Cecil sees their wide experience as a distinct advantage in that the group wasn't confined to the traditional game-writing techniques employed by other programmers.

The guy responsible for the exceptional digitised speech in *Mega-lo-Mania*, Richard Joseph, composed the music and sound effects. Much of the atmosphere is attributable to the spot FX during the game. The sounds of a dog barking, dripping water, squealing rats, footsteps in the distance and so on really make their mark. Future games, provided the general public buy into the whole concept of Virtual Theatre, will apparently incorporate music beyond the introduction sequence. Unlike the interactive soundtrack of Origin's *Wing Commander* saga, these tunes will only play at appropriate places, such as noisy nightclubs or elevators.

TROUBLE IN STORE

What's the handicap of packing so much into a single game? Waiting for each scene to load from floppy disk, of course. Luckily, it's not on the level as, say, *Space Quest IV* or *Cruise For A Corpse*. In the wish to keep playability alive, disk swapping is kept to an absolute minimum. If any kind of criticism can be raised against *Lure*, it's the linearity of play. While the competition is just as guilty, a true interpretation of interactive theatre should allow the player a totally free reign over the proceedings. Total improvisation is too radical an idea, eh? Sure, there's the luxury of token exploration and conversation with other characters, but the program rapidly brings any stragglers or mavericks back in line with the mainstream plot. At least there are several ways to reach the main events of the game.

CLOSE CALL

The people behind the first Virtual Theatre production must be slightly disappointed by the fact that their launch coincides with the long-awaited release of *Monkey Island 2.* Which one should you choose? It's like comparing the relative merits of the special visual effects seen in Return of the Jedi over Terminator 2. Such arguments are bound to get picky and pretty pointless. Make no mistake, both games are excellent in their own right. They also prove the likes of *King's Quest V* are past it.

I'd say Lucasfilm still has the edge over Revolution, though. Perhaps it's the injection of humour and a great music score in the former company's fantastic pirate yarn? Nevertheless, *Lure* marks an outstanding debut for Revolution Software.



As you move through the game's many screens (and battle against the disk accessing problems), all your relevant moves can be entered via the mouse. Simply by pointing at an object you wish to examine to collect, and selecting the required command your character will then follow your instructions. However, although this sounds rather a weak system, extremely complex orders can be given, including a lengthy succession of moves.







Thanks to *Lure's* detailed interaction techniques, the many characters wandering around the game seem to have their own personalities. Thus, if your initial stance is to be rude to someone, they won't be so friendly next time you meet them.





GOING UNDERGROUND Admirers of this adventure will be pleased to hear that the second Virtual Theatre game is already underway. Thankfully, it's not a straight sequel to *Lure*. Perhaps the designers at Sierra should take note of such a daring move? With a working title of Underworld, the theme will be a cyberpunk soap opera down under in a near-future Australia. After a cursory consultancy role in the first game, Dave Gibbons is more heavily involved in this project. Charles Cecil of Revolution Software hopes Gibbons will provide the artwork in addition to basic design ideas. These graphics would be hand-drawn and then digitised into the program. 'He's very versatile,' confirms Cecil. The next venture will feature a greater amount of animation and various tweaks to the internal game engine. *Underworld* should arrive in early 1993.

buyers guide

release date	out now
genre:	adventure
team:	Revolution
controls:	mouse
numbers of disks:	2
number of players:	1
hard disk installable:	tba
memory:	1Mb

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SOUND	84%
LASTABILITY	87%
PLAYABILITY	92%

OVERALL 89%

SPACE GUN



In space no one can hear you scream. If that's the case it's lucky we're here to lend a hand with Ocean's excellent bug-hunt...

Although the game is a basic variant on the *Operation Thunderbolt* theme, things can get extremely hairy in the game's spooky, alien-filled corridors. However, by following these basic pointers, you should be able to make it through to the end...

■ Always use the time when an alien is in retreat to reload your weaponry. Constant firing rapidly erodes the gun's battery pack, and if it fails as the creature runs towards you, you're in trouble.





■ It's not really worth wasting any of the special weapons on the ordinary aliens, save them for the larger guardians. As a rule, it's wisest to freeze these larger creatures with a 'Frost' grenade, and then pump shots into them before they thaw out. Repeat this procedure, and then finish them off with either fireballs or explosives.

There's very little to gain when it comes to choosing which direction to go. Basically, it just adds a change of scenery to the proceedings.



■ The eggs which spew out the flying meanies continue to produce fresh stocks until there are up to eight flying around. These sap your energy at a tremendous rate, but a lot of hassle and energy can be saved by simply taking out the eggs as and when they appear.

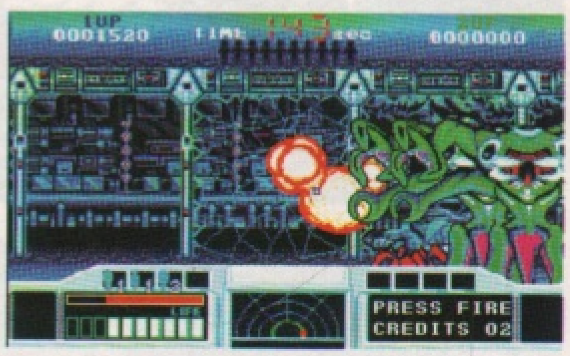
■ Whenever a human captive is stuck to the ground by the alien excretion, one shot is all it takes to free them. Any more and they'll be killed.

■ Make sure that you stock up on as many of the extra weapons as possible. In addition, learn when particular extras appear. On the second stage, for example, temporary invulnerability can be collected just in time to meet the next guardian.

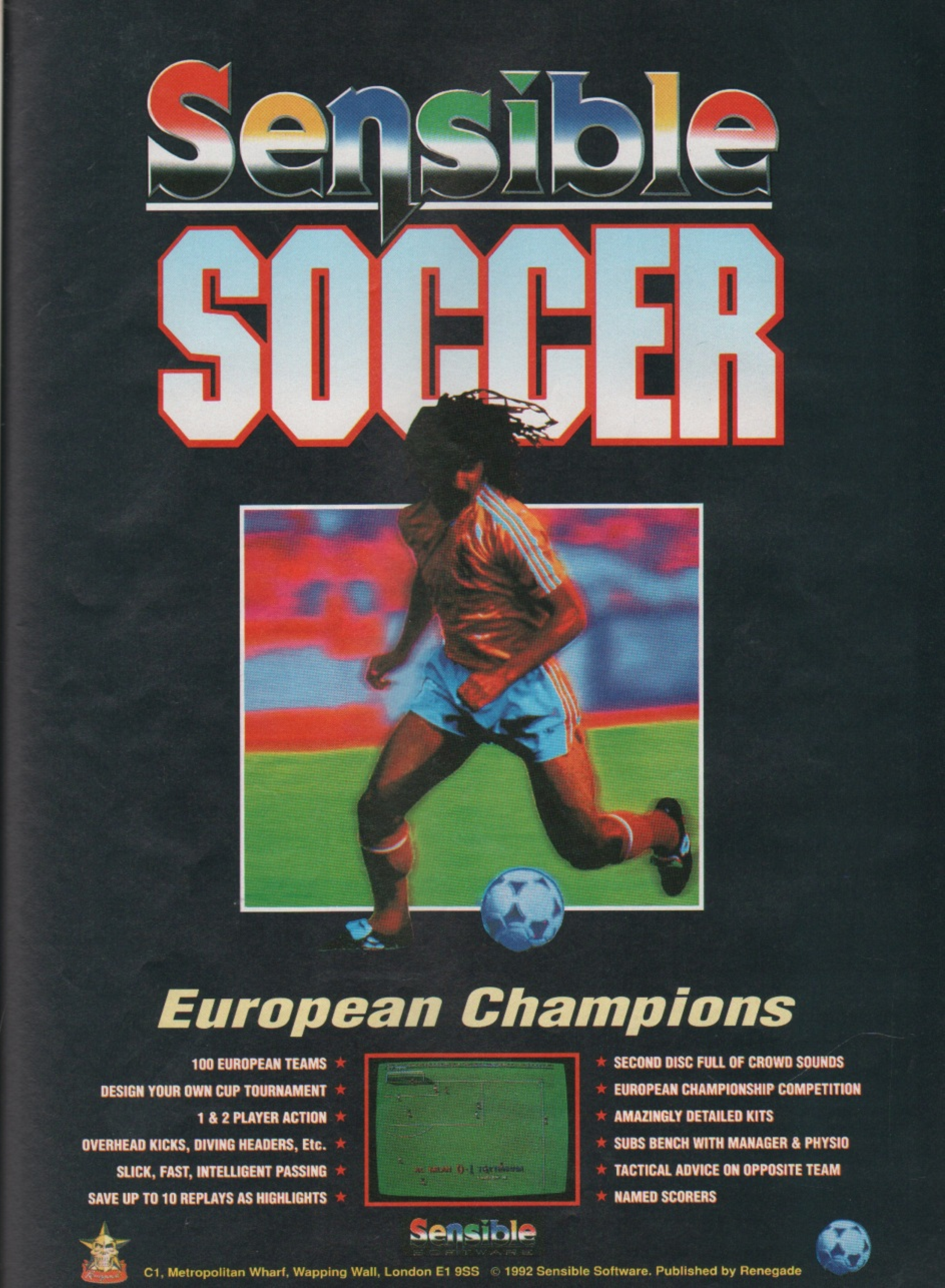


■ During the shuttle stage between bases, make sure you take out all the communication posts – they contain even more valuable extra weapons. They appear regularly on both sides of the screen, so just strafe from left to right to hit them all.

■ Take out the Facehuggers immediately. If these attach themselves to the screen, they will drain your energy extremely quickly. As they scuttle across the floor blast them, as they are easier to hit at this point.

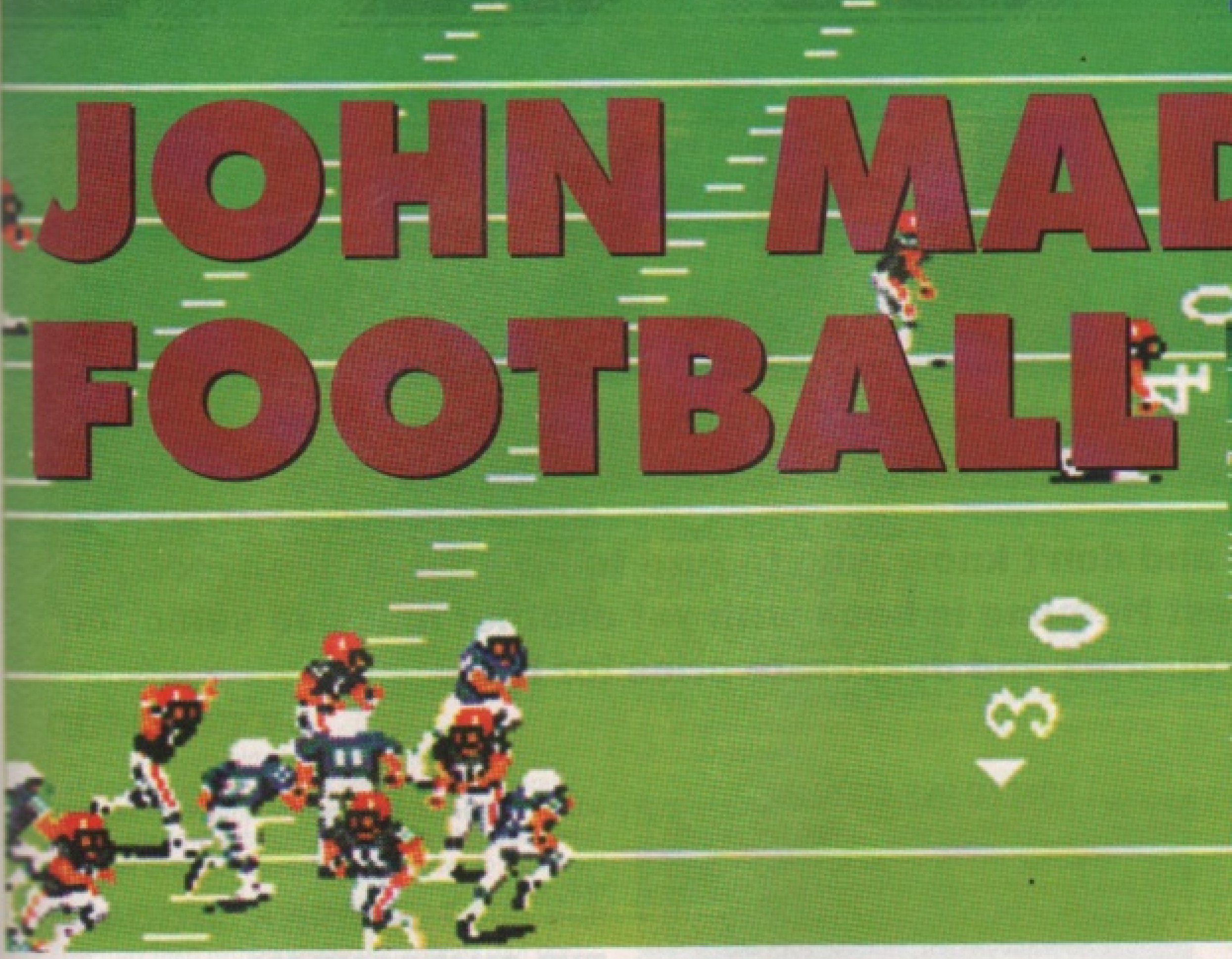


■ Normal aliens are extremely susceptible to chest shots. Shooting off their arms is very clever, but it wastes time. Keep your cursor centred on their midriff as they run back and forth, and keep the mouse button held down. They'll be reduced to their component parts in no time at all...

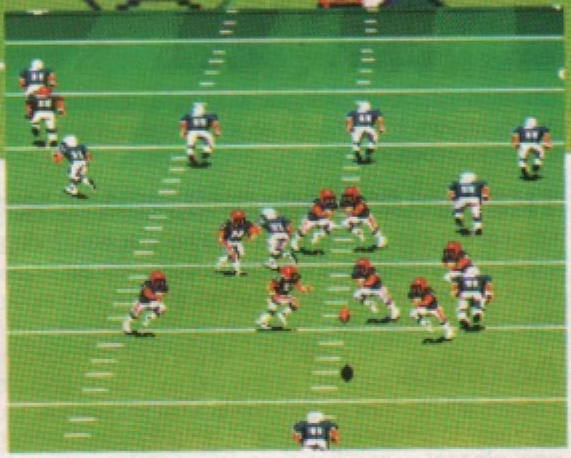


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JOHN MADDEN FOOTBALL







Are you having trouble separating your 4th from your inches? Are the infamous All-Maddens causing your struggling team grief in the last few minutes of play? If this is the case, then read on as CU and Electronic Arts gets together to bring you these useful pointers. Hut, hut, hut...

In *John Madden*, Electronic Arts have come up with one of the best sport sims since *Kick Off*. Amazingly, the incredibly complex control system has been carried over from the Megadrive console and converted to the Amiga with real style. However, there's more to this game than bump and grind and many people will be crying out for a helping hand by now. So here are a few tips to keep you playing into the small hours.

AUDIBLE HELP

Utilise Audibles as much as possible. Fool the computer into thinking you're attempting a long bomb (HANDS and SHOTGUN and then choose the teams' best running audible before the snap). The same can be done with Passing Plays. Set a formation and fool the computer into thinking that you're going for a running play (BIG and GOAL LINE), when at the line of scrimmage, choose the teams' passing Audible once more.

If you're too far away for a field goal, when on a 4th down, go for a Fake Punt. Fake Field Goals are also pretty useful in a tight spot, but only as a last resort. When running with the ball, run up field at an angle then, when a defender comes towards you, quickly change direction when he dives at your feet. Hold down the firebutton and you'll have the best chance of shaking the tackle.

DEFENCE POLICY

When playing defence, select a good strong formation. Manoeuvre a player from the centre zone to the line of scrimmage, and then into a gap between the two men, pushing them along the line of scrimmage. This often upsets the offensive line and you can get through to sack the quarterback. Always try to strip the ball from the offensive team if there are more than two of your defensive players around. You should be able to take possession. Also, when you're running with the ball and there's no way around a defender, try spinning around to throw him off track.

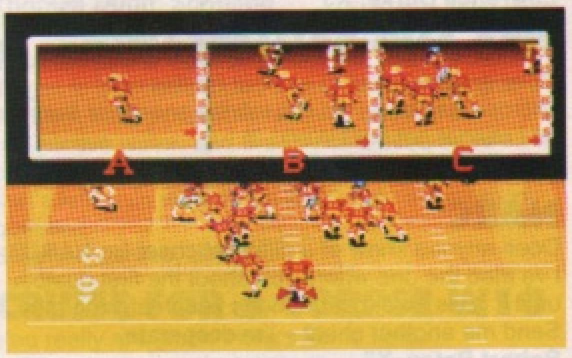
When playing the computer in defence mode and it chooses a running play, don't attempt to tackle the ball carrier. Instead, run in front of him and he will try to run around you. Block his change of direction and he will run backwards trying to get past. Keep this up and you will force him right back to regain the lost yardage.

OFFENSIVE BEHAVIOUR

Always watch the game clock. A lot of people always forget about it, and timing that all-important last scoring play can make the difference between a win and a loss. When passing, concentrate on the receiver windows as well. Choose the player who is free or ahead of the defensive players. By watching the distance meters you can tell who is in the best position to receive your pass.

HANDS, SHOTGUN, DEEP OUTS and POST UP are all very effective offensive plays and rate amongst the best to use. On the defensive front try 4-3 READ and WIDE ZONE 2. Anyone who can take Atlanta to the Super Sunday is a great player, but if you want a real challenge try to get over 100 points against a computer-controlled Madden team, then you'll be an all-star.









HELPLINE

HELPLINE IS SPONSORED BY MICROPROSE

If you're stuck on a game and don't know who to turn to for advice, then look no further. The original and best Helpline is back with yet another massive selection of game queries and desperate cries for help.

ENQUIRIES

PRINCE OF PERSIA
On level 12, I keep dying when I fight against my mirror image. Please can anyone advise me?
Chris Horrocks, X1

THE AMAZING SPIDERMAN
I can get to the sewer, but lose all my energy trying to hit the buttons. Has anyone got any advice or, even better, a cheat for this great game?
Paul Smith, X2

ASTERIX
Please tell me how to get into the Roman camp and how to capture a Roman? Help me out some-one, please!
Lawrence Burke, X3

FIRE AND BRIMSTONE
Does anyone know of a cheat for this old Microprose game? I'd like infinite energy or lives as I cannot get past World 3!
Daniel Pennuto, X4

NARC
Does anyone know of a different cheat for *NARC*? I've tried the one where you shoot the first dustbin until it goes blue, but the dogs keep catching me. Send me another cheat – I'm desperate.
Robert Bates, X5

VIDEO KID
I have played this for days and I still cannot get into the second video. Has somebody got a cheat for level skip or infinite lives?
Rene Vink, X6

JIMMY WHITE'S SNOOKER
Please can anyone give me any tips or cheats on how to beat Jimmy?
Gavin Sowry, X7

SECRET OF MONKEY ISLAND
Is there anyone out there who can help me? I am stuck on the ghost ship and don't know what to do once I have the jug of Grog from the sleeping pirate crew. Also, how do I get to the key in LeChuck's cabin?
R. Lotherington, X8

SPEEDBALL 2
Help! Has anyone got a cheat for infinite money or something similar for this utterly brilliant game. I can only finish second in the First Division and it's winding me up.
Michael Tudor, X9

HOW TO USE HELPLINE
It's easy. Just send in your letter, marking your envelope with the appropriate code number if you are sending a response or mark it 'Enquiry' if you need some help. Post your letters to: HELPLINE, CU AMIGA, PRIORY COURT, 30-32 FARRINGDON LANE, LONDON, EC1R 3AU.

HEAD OVER HEELS
Does anyone have a cheat for unlimited lives, donuts or invincibility?
Michael Tudor, X10

MARBLE MADNESS
Yes, it's an oldie, but it's still very addictive AND incredibly hard. I cannot get past the fourth level. Please help.
Mark Hatchard, X11

JOHN MADDEN'S FOOTBALL
I'm never going to reach the Super Sunday at this rate. I find the computer opponent too strong in the later stages of the competition. Is there a cheat for knobbling the computer so all teams play as bad as the real-life Houston Oilers?
Tom Askew, X12

FIRE AND ICE
The jungle level is far too hard. Has anyone got a handy cheat for invincibility?
Dave Yewdall, X13

GLOBAL EFFECTS
This is incredibly annoying. I never have enough power to build anything. Is there a cheat for infinite energy or anything else?
Paul Maloney, X14

PROJECT X
I've read that there aren't any cheats for this game. I can't believe that, after all the ones Team 17 put in *Alien Breed*. Please, if anyone has any, send them into CU as I'm stuck on level 3.
Alec Simon, X15

RESPONSES

VIZ V2
When the character selection appears, type in 'WHAT A GREAT LOAD OF BOLLOCKS', and press a number from 1 to 5 to go that level.
Robin Jones, Gwynedd.

CADAVER V3
The combination to open the door leading to the dragon is 1-4-3-2. Make sure you have the fire shield potion to protect you from the fireballs, and the king's crown and the massacre spell to kill the dragon.
Bjorn van Veldhoven, Belgium.

THE SIMPSONS V4
When the title screen appears (where the family are watching the TV together), enter the word COWABUNGA. When you start to play the game, you will now have infinite lives.



Robin Jones, Gwynedd.

PP HAMMER V5
Here are some level codes to help you out of your misery:

Level 50 FBDAJEBU
Level 56 FJFBUTWJ
Level 60 FEBEFHSH
Level 63 TAAGTDUF

Bjorn van Veldhoven, Belgium.

SHADOW OF THE BEAST 2 V7
Just before you enter the crystal caverns, kill the monster above you which shoots blobs of slime. He should then drop an axe. Collect it and go to the crystal caverns. Before you reach the guard who raises the alarm, switch to your axe. Then, as you reach the drawbridge, keep jumping and



shooting at the guard at the top – not the two guards sitting at the table. He will die, causing the drawbridge to stop and allowing you to bash through the stone wall.



Robin Jones, Gwenedd.

ROBOCOD V8

For infinite lives, simply enter the first room and, just before the first moving platform, there should be a number of objects. Collect them in this order: Lips, icecream, violin, Earth, and snowman.
Richard Dresser, Goole.

SHADOW WARRIORS V9

This may take two people to do properly, but hold down: CTRL, J, ESC, 5 (on the keypad), F2, RIGHT ALT, V and ENTER (not Return). The border should flash and you can now press 1-2 to increase the respective player's energy, HELP to skip levels, and Q for invincibility.
Bjorn van Veldhoven, Belgium.

SARAKON V11

Level codes are:

5 HANUKKAH	10 JOENK	15 GENCON
20 LUNKWILL	25 OPAL	30 TROLL
35 VRANX		

If possible, make Jokers the last pair to be cleared, then, on the next level, the first tile clicked will result in the removal from that level of all tiles having the same design – very desirable on later screens.
'Puzzle Addict', Leeds.

BUBBLE BOBBLE V17

Just as your dinosaur is about to lose his last life, press fire on a joystick in the other port, and leave the dinosaur you had just been playing with for dead. Now you have a new set of lives to use as the second player and the only thing you've lost is your score.
Robin Jones, Gwenedd.

PITFIGHTER V20

While playing, type in 'LOBSTERS' and then push any number from 1-0 to go to the respective level. Also, press 'L' to go to the elimination match and 'C' to go to the championship level.
Bjorn van Veldhoven, Belgium.

KILLING GAME SHOW V21

While the replay is playing, hit the Help key and you will restart from that point with 5 lives.
Robert Bates, No Fixed Abode.

PREDATOR V22

I can't believe you haven't stumbled across this one! Simply press F10 to restore lost energy.
J. Schook, Netherlands.

NEW ZEALAND STORY W1

To defeat level 4's whale, stand at the bottom left of the screen and wait for the whale to swallow you. Avoid the drops, and keep shooting from inside the whale to kill it For infinite lives, type 'FLUFFYKIWIS' (no spaces) on the title screen. Press 'Help' to skip levels.
Jamie Peters, Leicestershire.

LEANDER W3

Once you have the crossbow, walk right and jump onto the first, vertcally-moving grey rock, and jump onto the second rock and then on to the third. This will take you up to a gold-coloured platform. From there, walk left and jump onto the next platform and then the next. Keep going (watch the platform with a spike) and, if you are on the right track, you should have reached the platform where opposite there is a dwarf firing arrows at you. Step down onto the lower platforms and you should see the exit!
Gurdeep Singh, Middlesex

DEUTEROS W5

It sounds as if you haven't tried to attack the enemy. You must travel to the enemy planets and activate your DFC. Once you have destroyed ALL of the enemy planets, you're scientists will discover an engine which will take you to all the other planets and galaxies.



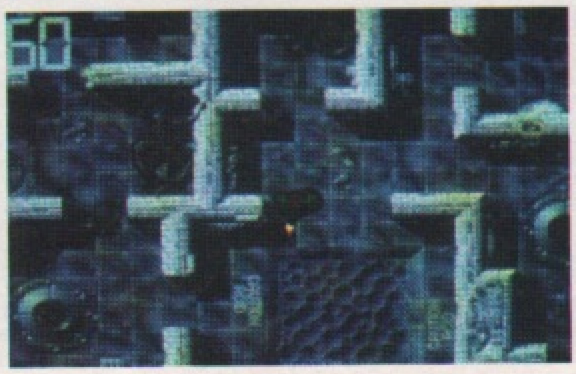
Gareth Davies, Gwunedd.

HERO QUEST W6

To increase your gold and recover life points without any effort, simply follow these simple instructions: save all your characters and select one to put in play. Select a quest where the exit stairs are in the first room (try Quest 13), and search the room. You will find some gold or a potion. This procedure can be carried out again and again to amass a fortune.
Alan Harris, Coventry.

ALIEN BREED W7

I haven't got a cheat for infinite lives, but I have got cheats for virtually everything else. To use them, log onto the computer on deck two (one screen south from where you start) and type in one of the following:
I can't be arsed to play the first levels
Skips to level 3.
Aliens are faggots
Makes Aliens weaker.
Puffnuts mode
Makes aliens very slow.
Is it true that Aliens support Man United
Makes aliens **very** weak.
Pissed as a fart
Play game in 'drunken' mode.



Pit bulls on the loose
Makes aliens as dangerous as pitbull terriers?
Ben Johnson trained these Aliens
Makes aliens a little bit faster.
The Iraqis made the weapons
Gives you terrible weapons.
Salmon Rushdie plays Alien Breed
Try this one!
Beware Aliens spadge has dropped one
All aliens flee with terror!
J. Robinson, Staffs.

MICROPROSE GIVEAWAY

CU AMIGA have linked up with Microprose, one of the world's leading software companies, to offer some exciting software prizes to each reader who writes in with a cheat and has their response printed in these hallowed pages. It's simple, really. For every cheat we publish, the reader who supplied us with the information will receive a top Microprose game. Gratis. Completely free. Can't say fairer than that, can we?

FIRST SAMURAI W8

So you're stuck on level two, eh? Once you've collected all four objects, go to the teleport under the piece of recurring food (ie. chicken drumstick). Make sure you have a prayer bell. You will then be transported to a place with two teleports and four blazing fires. Use the bell to summon the wizard to put out the fire. If you have more than one life, use the recharge pot, jump up platforms, and at the top you will meet the end-of-level guardian.
Thomas Dunn, Scotland.

MANIAC MANSION W9

To get to the Telescope Room, you need to give the man-eating plant the tentacle chow, the radioactive water, and the Pepsi. Once you've completed these tasks, the plant will grow and all that's left to do is climb up its stem to the room in question.
Stephen James, Bristol.

CRUISE FOR A CORPSE W10

You really are stuck! Here's some help...
1. There's no need to talk to the mermaid in order to complete the game.
2. Pick up the message that's on the floor in the study. Press the right mouse button to display the inventory. Select the paper, unfold it and then read it. The clock should then advance ten minutes. The message mentions the bar, so go there. When you've reached the bar, go to the inventory and show the message to the barman. He'll the give you father Fabian's bible. Read the book and take the letter you'll find hidden within. Read it and the clock will advance. Go to the dining room and ask the Father about everything. This should help you on your way.
Russel Williams, Cardiff.

WINGS OF FURY W11

You are obviously in dire need of a cheat. When starting the game, type 'COLIN WAS HERE', then press 'P' for 9 planes, 'C' to change weapons, 'M' for infinite weapons, 'D' for immunity, and 'F' for fuel.
Dave Topham, Leicester.

MAGIC POCKETS W12

When climbing past the Frogs and Zombies on level three, always spin up into them to kill them.

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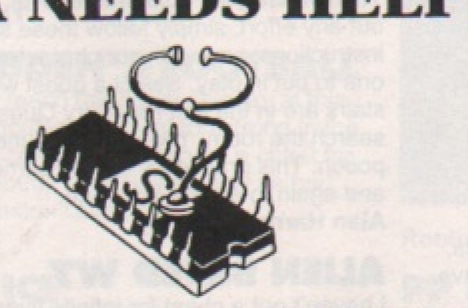
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ADVENTURE HELPLINE

If you're stuck in *Eye Of The Beholder* or simply want to know what's what in the wacky world of adventuring, this is the only place to be. Join Tony Gill as he aids the Amiga's many wandering warriors...

NEWS

I have received so many new games this month, that it's been a struggle to find the time to play them all. The Amiga RPG and Adventure scene is really hotting up as software houses realise that there is a big market for sophisticated games which can hold a player's attention for weeks at a time. For too long, Role-Playing and Adventure Games were given the same treatment as meted out to old science fiction TV shows. Yet, despite cardboard sets and poor acting, the fans continued to watch Doctor Who, Star Trek and Blake's 7. When Hollywood finally got serious and produced Star Wars, the box office takings rocketed. In the same way, devoted RPG fans persevered for years with simple text descriptions and only their wild imagination to fill the gaps between the words with wonderful demons and fantastic lands. Software publishers have now realised that the computer gameplayer will put his hand in his or her pocket to buy something which can test the imagination as well as the reflexes. I would bet that any survey taken of Amiga gameplayers' favourite movies would reveal a very consistent list of science fiction and fantasy films. Alien, Star Wars, ET and Terminator would all appear time and time again to prove that we are not just a bunch of moronic joystick wrestlers, but imaginative dreamers who long to escape to a time and place where wonders are to be found and fresh worlds lie waiting to be explored.

The release of *Black Crypt* from Electronic Arts is one of the genre's biggest advances for ages. I am a great fan of *Dungeon Master*-style games and, as far as I'm concerned, *Black Crypt* has to be the current number one. The graphics are beautiful and the sound effects are sunningly realistic. This game plays at a faster rate than *Eye Of The Beholder* and looks better than *Knightmare*. Two more pluses in its favour are that it's got more spells than *Dungeon Master* and is less confusing than *Chaos Strikes Back*. Of all the games I've seen, this is the one that I can't wait to get back to. The auto-mapping feature will no doubt be welcomed by many – I for one would hate to think of the hours that I wandered around in confusion within *Dungeon Master*! If there's one feature that I don't like, it's that the manual actually gives hints and solutions for lost souls. I don't believe anyone will be able to resist peeking at the answers (apart from us real men, of course!). If you have been holding back your money until a true *Dungeon Master* successor appeared, wait no more.



With the Amiga already regarded as THE machine for adventures and RPGs (yes, even more so than the all-powerful PCs, we are being treated to real cracking romps. Gone are the text adventures we all had to put up with for so long – and the stereotypical spotty git in an anorak image. Instead, with the likes of *Black Crypt* and, of course, *Dungeon Master*, the genre is starting to get the respect it so rightfully deserves.

SUMMONED BY SHADOWS

When I first saw the muddy-coloured screenshots of Domark's *Shadowlands*, I laughed because I thought the photographer had screwed up. Not so – the game actually has a dark and muddy screen display. OK, so dungeon corridors are not supposed to be bright and airy, but neither are they supposed to give you a headache from peering through the gloom for hours. It's not all bad, though, and the game does allow you to split your group and send individuals off to investigate in different directions, and this is a good idea which works well. However, like *Bloodwych*, the characters and the dungeon denizens are very small and ill-defined. When I first saw the Red Dragon in *Dungeon Master*'s cellar my jaw dropped – he seemed so large and REAL! In *Shadowlands* the bad guys are indecipherable squiggles which clump around as if they were Lancashire Millworkers in wooden clogs. The game seems to have lots in it, but looking down on the ant-like creatures which march around the corridors, I felt too detached from the action and I couldn't get personally involved in the struggle. I also hear that Krisalis have snapped up Teque's sequel, *Shadow Worlds*, which is this time set int he icy confines of a space station. All the original game's control method and options will be retained – and refined – but the game is supposed to be considerably larger, and the traps much more devious. This sounds rather good and, from what I've seen, could be an excellent foray into the genre for Krisalis – and, surprisingly, there's no mention of Man Utd in it, either!

ELVIRA'S BACK

Did you like *Personal Nightmare* and *Elvira* from Horrorsoft? I loved the graphics of *Personal Nightmare*, but found the game a bit too hard. Similarly, I liked the graphics of *Elvira*, but couldn't hack the fighting sequences (hack – geddit?). *Elvira II – The Jaws of Cerberus* looks just as good as the previous games, and I must say that in the short time which I've had to play it, I think it is very



Good old Elvira is back in a second, more detailed adventure. Rumour reaches us that a third, even larger game is on the cards, but as yet there has been no confirmation...

good. The game has eight disks, but unlike our nerdish heroine Elvira loads each new screen in the twinkle of an eye, keeping the action moving. The game is full of horror graphics and Elvira's wiggling bits. Both of which are worth a look. By the way, we ran a complete guide a couple of month's back, so if you get really stuck, refer to



After something like six months on release, Tony Crowther's excellent *Knightmare* is still causing more than its fair share of headaches and problems. The question on our lips, though, is when is there going to be a sequel...

Hints and tips

that for the low-down on the game – I know I already have on several occasions!

THE SECRET OF MONKEY ISLAND

My mail is still full of letters seeking help with *Monkey Island*. Richard Meller still hasn`t worked out that he should use the cooking pot from the Scumm Bar kitchen as a safety helmet when being fired from the circus cannon. R.G. Owen has failed to realise that the Troll who guards the bridge won't let him pass until he gives him the fish which is found on the jetty at the back of the Scumm Bar. Keep stamping on the loose plank until you move the pesky seagull out of the way. For those of you still trying to get past the deadly poodles, use the meat with the pot of stew. Pick the yellow flowers from the forest and then use the meat with the yellow petal. Go to the Mansion and use the meat with condiment on the deadly fish.

A few letter writers ask how they can get the rope from the corpse on Monkey Island itself. To do this, you must highlight the cursor on the pond. Enter the pond, pick up the note then pick up the rope. To get off the boat and actually get onto Monkey Island you will need to blast yourself onto the shore using the cannon.

KNIGHTMARE

Esther Garcia of Spain has written to say that he is playing *Knightmare*, but he finds that at one point he can`t pass water. At first, I thought he was being rude about this excellent game, but he is actually referring to the water obstacle in Quest 4. After successfully removing a wall by throwing an object from the moving carriage at the 'Target Practise' problem, he now finds that a single square of water must be crossed to reach the new area of the dungeon. As you will have already found out, entering the water kills you rather quickly because you sink and drown. What we all want to do at this point is to throw off all our clothes – and get naked. You`ll now find that you can skip as lightly as a fairy over the water, with only your dainty toes getting wet. Make sure you throw your armour and weapons over the water pit because you`ll need them at the other side. To thank me for my help, Esther also sent me the answer to Jeremy Iveson`s problem in *Bard's Tale III*. For entry into Lonatis Tomb in the Ice Dungeon say 'CALA'. In there, you will discover the Sphere of Lonatri and the Wand of Power. This question was asked for in CU Amiga – September 91.

Where have you been, Esther?

Merle Person from Yorkshire is also having difficulty with her plumbing, but in her case it`s a black-robed ferryman who wont let her get in the boat until she stumps up for the fare. The coin she needs is not in the orchard where she tells me she has spent a month digging – instead it`s in the care of the Jester who is hiding in the large room above. During your travels you must have found a funny stick (funny as in `ha-ha`) with a Jester`s head on it. This stick can be thrown at the Jester to kill him and reveal a coin. The room is at the end of the fireball corridor with the pressure pads on the floor. To get to this room you should have first opened the door which has a secret skull push switch on the wall, and been to the far side of the mystic door maze where there is an Egyptian fighter with a key.

ELVIRA

Anthony James is in Elvira`s kitchen attempting to conjure up something from her recipe book, but, unfortunately, he is a little short on the ingredients. If Tescos is shut, I suggest you take a trip to the catacombs and find some Dragon`s Blood which is hidden on the skull above the door. All of the other herbs and plants can be found in the maze or in the trees and bushes in the garden.

DUNGEON MASTER

Richard Moon from Perth is still playing that golden oldie, *Dungeon Master*. Having found one Ra key on Level 3, another on Level 9 and yet another on Level 12, Richard is beginning to despair of ever finding the last one. I fear young Richard is a victim of the cunning Grey Lord who hid the last key on Level 7 itself. Once you have found the third key, return to Level 7 and open it up. Go along the corridor, and past the four doors on the right. Open up the last door with the ruby key (what do you mean, you haven`t got it!) Once inside turn right and go right to the end of the corridor and open the door. In this room is a secret wall switch which will open up a wall to reveal the last key. If you don`t have the ruby key it`s on Level 11 behind the wall that has the sign `Enlarge My View` carved on it.

CAPTIVE

If you are one of the many *Captive* fans still battling your way through the seemingly endless space stations, I have news for you. You wont! The game really is endless, as the computer will construct new missions indefinitely. Enjoy it for as long as you wish, but don`t kill yourself seeking a final solution.

CRUISE FOR A CORPSE

Continuing the explanation of the Mermaid's Codes, here are the actions which you need in Delphine`s *Cruise For A Corpse* from lunchtime onwards:

Code	Action Required
9a	Search Daphne`s Cabin and get newspaper from wardrobe.
7a	Interview Rebecca in her cabin. Go to top deck and talk to Rose.
7b	Interview Daphne in her cabin. Talk to Suzanne in the bar. Talk to Fabiani in Dining Room.
7c	Search Fabiani`s room for watch in wardrobe.
11a	Talk to Julio at the rail. Ask about watch.
11b	Talk to butler in his room.
11c	Search Rose`s knitting bag on top deck.
7d	Ask Rose about gun advert.
7e	Go to Logan`s room and find letter in wardrobe.
7f	Go to Laundry and find key in pot.
12a	Go to top deck and throw lifebelt to Suzanne who has fallen overboard.
12b	Go to Suzanne`s room and find small jewel case. Turn the key to make ballerina dance. Take ballerina and turn key again to open the secret compartment. Take new clue.
13d	Go to bar and watch the murder attempt. Take handbag.
14b	Go to Daphne`s room and talk to her.
15a	Take a walk past the cabins in this order. Rose Logan, Fabiani, Rebecca, Daphne.
15b	Go to Mermaid and talk to Dick. Go between Dick, Suzanne, and Rebecca, asking about everything until the clock advances.
16a	Return to your cabin and find note slipped under door.
16b	Go to Hector`s room and find him dying.
21a	Go to kitchen and take can-opener. Lift hatch and go down on the hoist to ship`s hold. Take crowbar to open crate. Take a can and open it to find hand grenade.
21a2	Go to Engine Room and get screwdriver. Go to Smoking Room. Pull out projector and place film reel on it. Unscrew the hood screws, press green button, replace hood. Press green button and watch film.
17:10	Go to Rear Hall and get note from Daphne.
17:20	Go to Suzanne`s Cabin.
17:30	Go to Captain`s cabin and take book. Examine book.
17:40	Go to Nicklos`s Study and rearrange books to form word seen in book.
18:00	Enter room on the right and fight.
18:10	Examine man and take dummy.
18:20	Go to Smoking Room and show dummy to Daphne.

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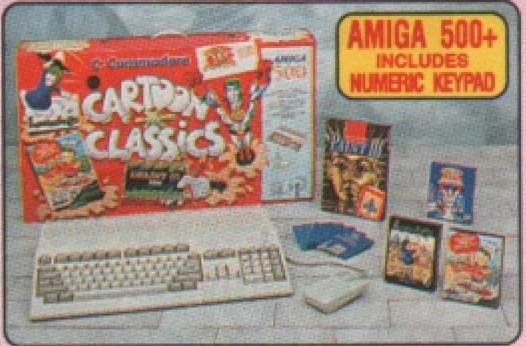
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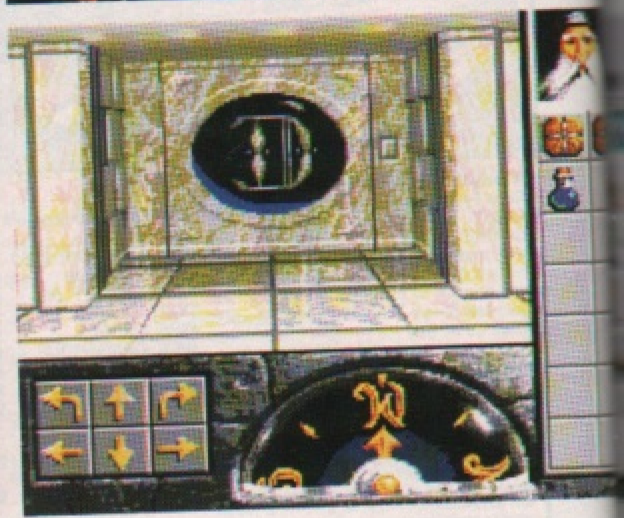
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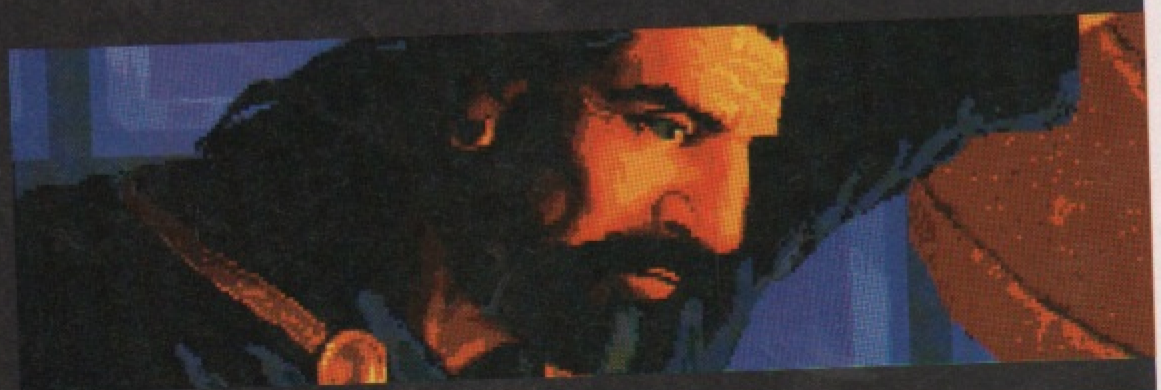








EYE OF THE







Any adventurer worth the contents of his backpack will have a copy of US Gold's recently-released *Eye Of The Beholder 2*. If this includes you, all you need to make your gaming experience complete are a few hints and tips courtesy of CU Amiga.

STRAIGHT AND SIMPLE

Eye Of The Beholder 2 provides the adventurer with two main problems: puzzles and monsters. We will presume that you're not quite so bad at gaming to be struggling with the very first foe you meet, so we'll endeavour to instruct you on how to defeat some of the more ferocious and tricky assailants you'll come across. In addition, we'll also give you a few useful hints to help you on your merry way.

MONSTER MADNESS

CATACOMB LEVEL 3

Margoyles

Margoyles will usually attack your party in groups. Don't let them surround you or your hit points will be massively depleted. They are immune to normal



E BEHOLDER 2

weapon attacks and are usually found where resting your party is impossible. The best course of action is to place the characters holding magical weapons at the front. Attack as quickly as possible, too, as Margoyles can down a Mage with one hit.

Gelatinous Cubes

Quite a strange and perplexing thing to come across in a passage. These globular cubes fill the hallways from floor to ceiling and consist of transparent living tissue. The cubes are relatively slow, and are easily defeated from a distance. However, if given the opportunity to attack, they can devour the armour from your backs! Use daggers, rocks, and spells to fight them off from afar.

SILVER TOWER LEVEL 3
Will 'o' The Wisps

Due to their low armour class, these fiery spirits are very difficult to hit. The best way to deal with them is to prepare some 'Prayer, Protection Vs Evil 10' radius, and 'Haste' spells before tackling them in close quarter combat. This will allow you to hack away and defeat them efficiently. Use two weapons for each character to maximise the attacks and consequently dispatch them quickly.

Beholders

These make an unwelcome return from the first game, so the chances are you're familiar with them and their offensive capabilities already. When tackling these, make sure you have not mistaken them for Gas Spores, which are much less gruesome to look at. Beholders are completely resistant to magic, but, conversely, are extremely proficient in using the art themselves. They can devastate a whole party very quickly if left unchecked. To defeat them, dodge left or right whenever they attack. Use two weapons per warrior when attacking and always try to take them from behind.

AZURE TOWER LEVEL 3
Greater Guardian Demons

You need a weapon of +2 ability or more to even hit these monsters. They are immune to all forms of cold and electrical attacks – magical or otherwise. As with most of the more powerful monsters, don't forget to dodge their attacks.

AZURE TOWER LEVEL 4
Frost Giant Prison Level

Another beast that is immune to cold attacks, these giants can inflict massive amounts of damage on party members. However, they are very susceptible to lightning bolt attacks, which must be implemented from a distance to preserve your party members without a spell. At the very least, this form of attack will severely weaken the Frost Giant before you have to trade blows face to face.

CRIMSON TOWER LEVEL 2
Salamanders

Just for a change, these worm-like creatures are affected by cold spells. 'Cone Of Cold' is particularly useful and does the most damage. A combination of these plus magical weapons should be enough to wipe any number of Salamanders out. However, they cannot be hurt by normal weapons so don't waste any time using your Swiss Army Knife on these fellas.

Mind Flayers

As soon as these cloaked creatures come into sight, start to dodge immediately as they emit an invisible psionic blast which paralyses and then kills the party. The only way to survive contact with them is to retreat and prepare your attack methodically. Only attack them if it's absolutely necessary. Most spells will have no effect. Use your weapons for a couple of attacks and dodge and wait for the next opportunity.

HINTS FOR SURVIVAL

Whilst exploring the forests and dungeons, you'll find heaps of bones and skulls scattered about or buried in shallow graves. These will seem pretty useless at first, but, if retained, certain combinations of the two will enable you to resurrect an NPC (Non Player Character) from them.

The forest section also hides a secret sub-level which contains a Blur spell and some +2 armour. From the starting place, go straight ahead, turn right. Then left, left again, right, left, left, right, and then right to find the stairs down to the level.

Inside the first temple – the Temple Darkmoon – you will find the 'Seal Of The Four Winds' on the north wall. The only way to open this is to collect the four horns that are scattered around levels one to four. When they've been found, face the seal and blow them. The seal will then vanish and you may venture on to the Silver Tower.

Sub-level two (underneath Temple Darkmoon), conceals a secret button located in the west wall between two staircases. Once pressed, it will reveal a teleportation room which will transport you down to the next level.

The Catacombs are the first real dungeon-looking locations. The walls are coated in moss which covers the large fitted stones. Throughout the rooms you will find large iron-bound wooden barrels. If you hit the barrels they will sometimes reveal rations, but if you smash the barrel located right, through the door, right again and through the door. Then go right, left, right again, and follow the passage's course until you reach the door. Enter through this and turn left, and at the end of the passage, you will receive three pouches of magic dust. This will restore a character from the effects of a Medusa's gaze or a Basilisk's touch.

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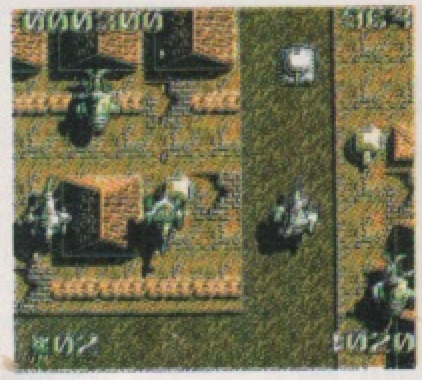
game of THE MONTH

Until the recent release of Infogrames' *Advantage Tennis*, *Pro Tennis Tour* was long regarded as the ultimate Amiga Tennis simulation. Its success lies with its simplicity and ease of play. Rather than requiring exact positioning, *Pro Tennis* features a routine which borders on the instinctive. For instance, shots can be placed by the positioning of your player and the time the firebutton is depressed. A variety of courts can be selected, as can the ability of your computer-controlled opponent, and everything gels together perfectly to create an excellent simulation. Although *Advantage* has pipped *Tour* for the Tennis trophy, Ocean's rerelease is still an essential buy.

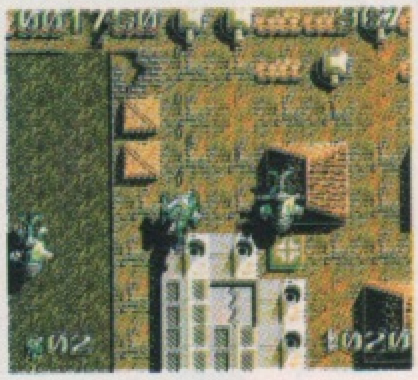


THE HIT SQUAD OUT NOW £7.99 **87%**

APACHE FLIGHT



Apart from the likes of the Codemasters' titles, original budget titles are still a fairly rare commodity. Hence, it's a nice surprise to see something like *Apache Flight*. Don't expect anything flash: it's basically a primitive version of *SWIV*; even so, though, *Apache* is still a solid and playable shoot 'em up. The predictable storyline tells of a mission to destroy a series of weapon caches which have been overrun by a Guerrilla-owned army. Thus, armed in your super, ultra-tooled-up 'Chopper you must run the gauntlet of enemy emplacements and vehicles, whilst avoiding the flak they continually release. Meanwhile, there are also the obligatory power-ups awaiting collection, which endow your helicopter with more powerful armaments. OK, so *Apache Flight* isn't likely to win any awards for originality or style, but it plays quite well and offers a tough challenge which is well worth eight quid.



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DIZZY'S EXCELLENT ADVENTURES

Codemaster's oval hero has appeared in more sequels than Jason Voorhees has appeared in Friday The 13th films. Now, however, the Codies have bundled together a series of previously-unreleased Dizzy games to tide his groupies over until his next adventure. The Dizzy's Excellent Adventures pack contains *Dizzy Panic*, *Bubble Dizzy*, *Prince Of The Yolkfolk*, *Spellbound Dizzy* and *Kwik Snax*, and whilst three are the customary object-related arcade/adventures we have come to expect, *Kwik Snax* and *Bubble Dizzy* are odd little arcade numbers bundled under the Dizzy name – but even the egg-shaped hero's moniker can't disguise that these are updated versions of extremely old coin-ops. For the asking price, this is a worthwhile pack, and the three arcade/adventures – whilst hardly stretching the imagination or reflexes – are fun enough, and even the weak arcade games offer some entertainment. If you want to risk OD-ing on Dizzy, this is probably the best way to go...



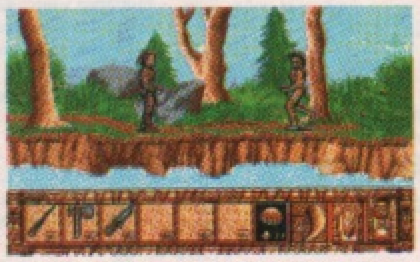
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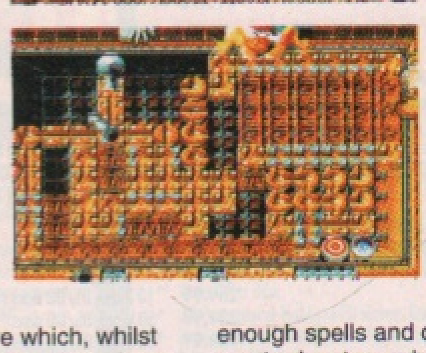
VFM

Steve Merrett once again enters the budget zone to locate all the best bargains, and report back on what's available for those on a limited budget...

FANTASYPAK

With newcomers Daze now handling Silmarils' products in the UK, it's an opportune moment for them to bundle together three of the better known titles in a compilation. FantasyPak is made up of *Colorado*, *Boston Bomb Club* and *Crystals Of Arborea*, and represents a pleasant cross-section of gamestyles. However, Silmarils' typically high standard of presentation is the one current theme running through the trio. Starting with the oldest (and weakest) of the trio, *Colorado*, we enter a rather sad arcade/adventure which, whilst large, contains virtually nowt to keep the player interested. Next up, we have *Boston Bomb Club* which offers a neat slant on the age-old puzzle sub-genre. Played over a table laced with wires and traps, the player must manipulate these objects to guide a series of bombs towards a bucket of water which will defuse them. However, sitting around the table are a series of Victorian meddlers who will wreck your hard work by rearranging your layouts. Easing the player into its intricacies, *Boston Bomb Club* is a simple but fiendishly addictive game, which will hopefully receive more recognition as part of this compilation than it did as a stand-alone product. Finally, it's RPG time, as we enter the lush world of Arborea. A larger version of the *Dungeon Master* idea, *Arborea* is superb to look at, and contains enough spells and creatures to keep most adventurers happy. FantasyPak is a varied compilation, and whilst the quality of its contents differs greatly, it's relatively low price makes it an attractive proposition.

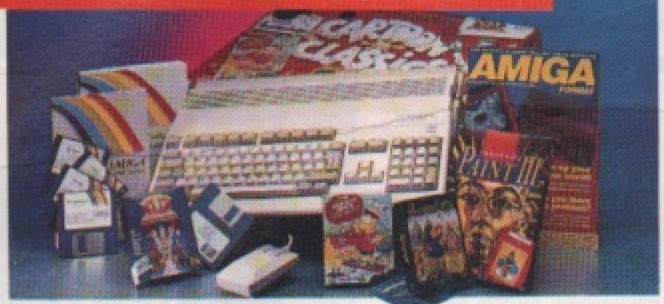




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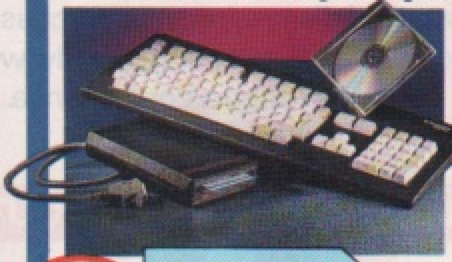
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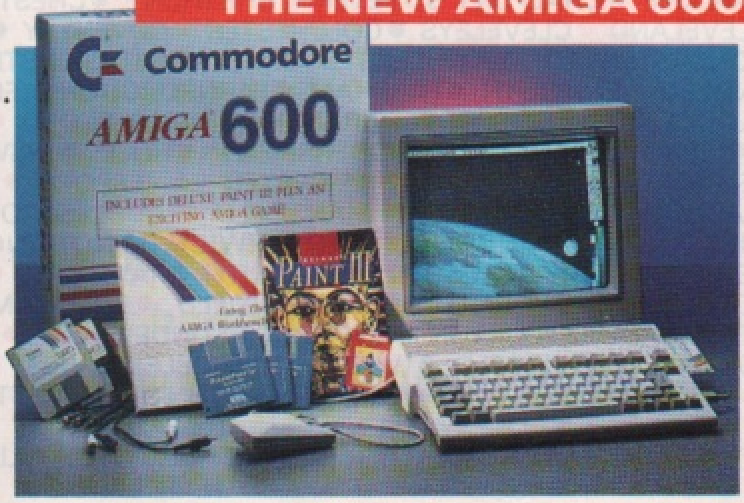
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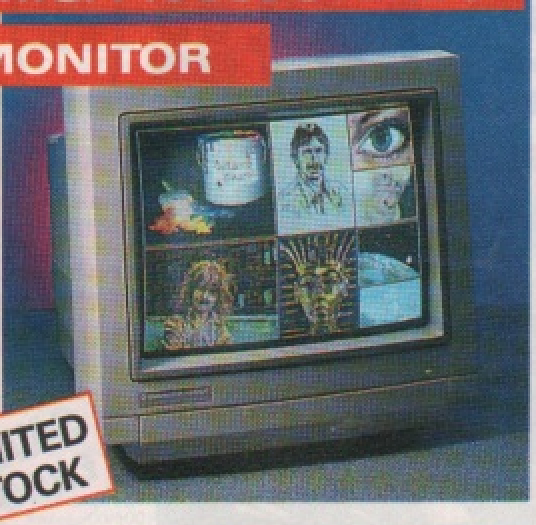


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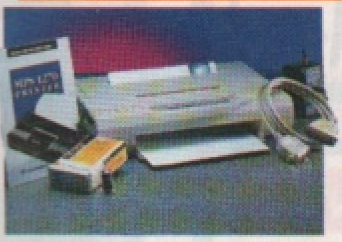
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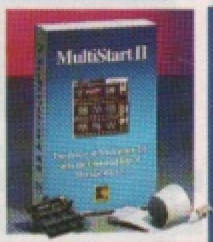
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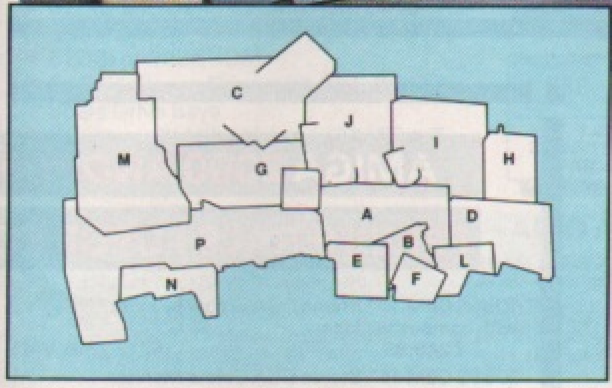
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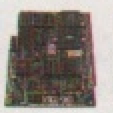
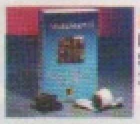
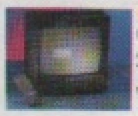
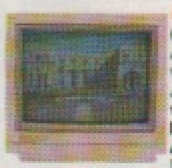
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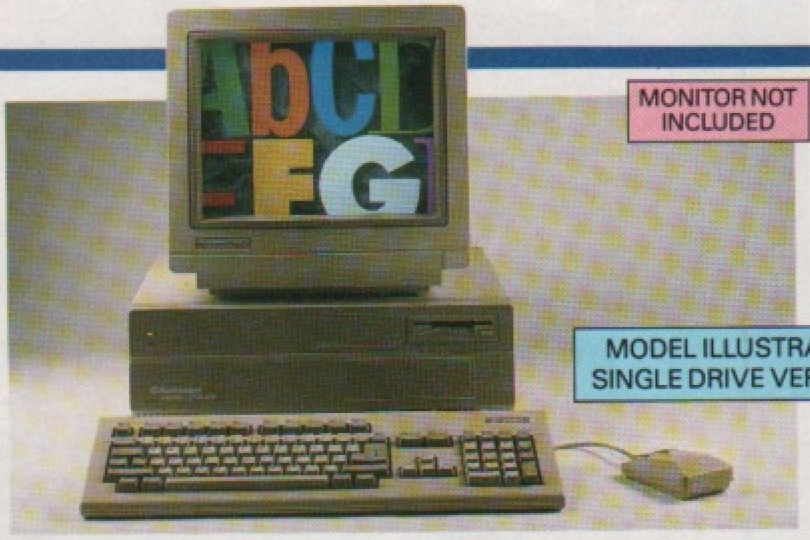
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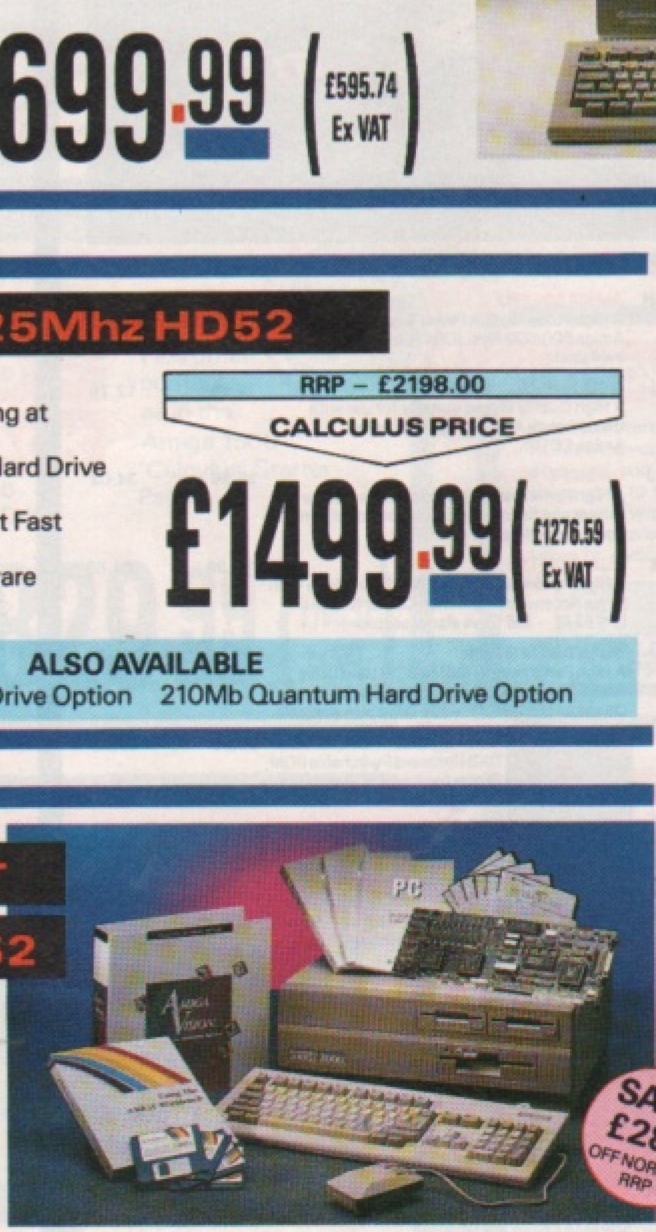
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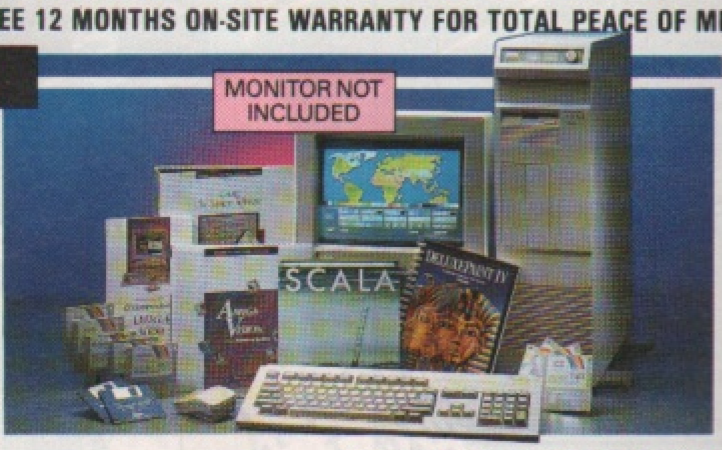
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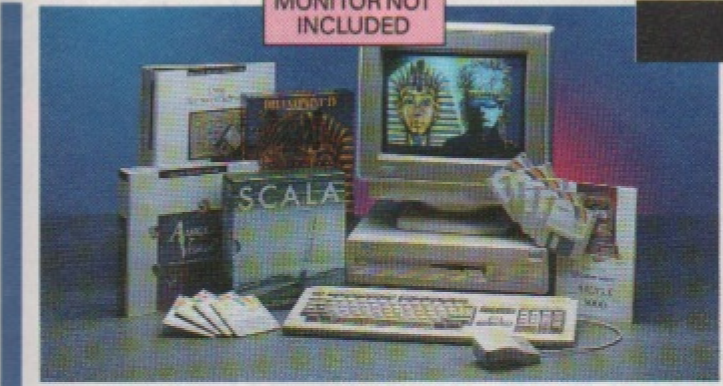
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- 52, 105, 210 and 425Mb Hard Drive Options
- 512Kb of 32Bit ROM
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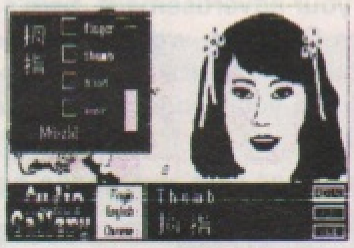
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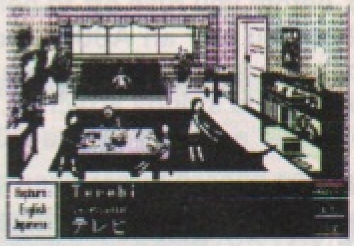
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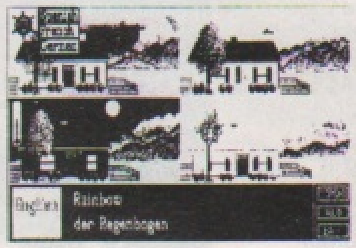
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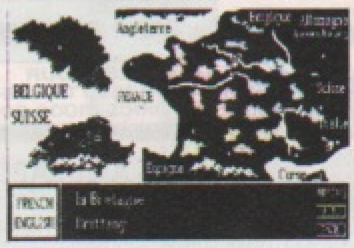
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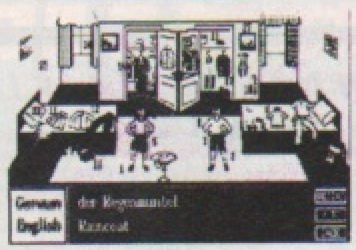
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Within the next section anything can happen. Every month, we will be getting to grips strange new software, seeking out intelligent peripherals and inviting you to...

GETSERIOUS

CU AMIGA TOP RATED

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QUARTERBACK



Mat Broomfield pads up and goes to work on *Quarterback* and *Quarterback Tools* – are these the ultimate in disk utilities?

A LONG HARD SLOG

If you own a hard disk, the question is not if, but when, it's going to fail. Even the best drives in the world inevitably start to deteriorate after prolonged use, and if you could predict when it was going to happen, there'd be no problem. Unfortunately, you can't, so the chances are, when your drive eventually fails, it's going to take valuable data with it.

Quarterback is an American program which aims to reduce the hard work involved in maintaining regular backups of your hard drive. When the program loads, you're presented with a list of all currently-mounted devices, including floppies and the RAM buffer. Before you can make a back-up, you must select the directories or files to be included by 'tagging' them. If you wish, you can simply specify an entire directory, such as DH0, in which case everything on that drive will be duplicated to disk. Alternatively, you can manually sift through each directory on the drive, and tag files by hand. If you're a more experienced user, you can also use multiple tagging filters to select the files. For example, you could specify that only files ending in .doc, .C or .arc are to be included, which tells *Quarterback* to scan the entire contents of the highlighted directory tagging the appropriate files.

If you're happy with your selection, the back-up options menu allows the user to specify where and how the back-up file will be stored. In its default mode, *Quarterback* writes directly to floppy, prompting disk changes as and when required. Better still, it automatically formats the disks as it goes. In fact, it doesn't save back-ups in DOS format unless you deliberately indicate you wish to. By saving data like this, the program achieves considerably higher rates of compression (if specified), and provides security for your data so unauthorised users can't browse through your back-ups. Speaking of which, you can also add a password to your disks which must be entered before the back-up can be accessed.

ADDRESS BOOK
Quarterback costs £61.25 and can be bought from HB Marketing, Unit 3, Poyle 14, Newlands Road, Colnbrook, Slough, SL3 0DX. Tel: 0753 686000.

AUTOMATED HELP

All that remains now is to return to the main menu and click on 'Proceed'. *Quarterback* will then commence the back-up, verifying and prompting for new disks as it goes. To be honest, this can take ages, especially if optional compression has been set to its highest rate, saving nearly 50% of disk space. A back-up log is stored on the first and last disk of each back-up, so that you can always check what was duplicated.

Restoring files, the user can specify where the restored files are to be located, and apart from disk

QUARTERBACK TOOLS

A perfect complement to *Quarterback*'s hard drive back-up facilities, *Quarterback Tools* is a package which aids retrieval when those fragile floppies die.

Considering their fragile nature, it's surprising how rarely we encounter problems with floppies. Yes, I know we all curse when we do get a problem but, considering how flimsy they are, we do get off lightly. That's just as well, as even a single read/write error can destroy hours of work, and prompt much gnashing of teeth and hair pulling.

HELP IS AT HAND

From now on, only the most terminal of problems need cause you worry, as hot over from America comes *Quarterback Tools* (*QBT*), the latest in disk maintenance systems and first aid kits.

Although its most valuable use is repairing damaged disks and recovering files, *QBT* is also incredibly useful as a diagnostic and day-to-day maintenance tool – a floppy Janitor. Its features include optimisation, formatting/unformatting and statistical facilities. Having selected a volume (disk) to process, the user is duly presented with the main menu which gives access to the program's many functions. The first option, Display Volume Statistics, simply describes the type and status of the current disk, including the number of blocks per track, and the size of each block in bytes. By toggling this option to display disk drives, you can also find out information about non-DOS disks.

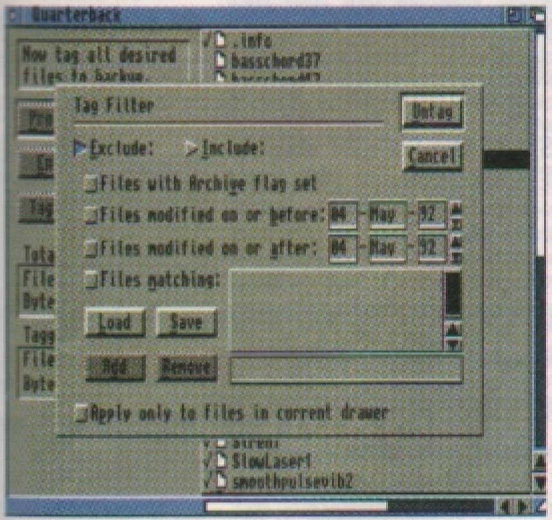
TIME SAVER

The next option is 'Go to Volume Reorganization Menu', and takes the user to a screen containing a further three options. From here, the user can examine the way that space on a disk has been fragmented, and find out exactly how many files have received the same treatment. By selecting 'Reorganise Volume and Defragment Files', *QBT* is instructed to optimise the disk by arranging all the files for maximum efficiency. This means that all operations using this disk, will be considerably faster than they were. I optimised a sample disk containing 41 files, and found that whereas it had previously taken roughly ten seconds to read a directory of the disk, after meddling with the *QBT* it was reduced to three.

QUICK INFO
Quarterback Tools costs £71.47 and is available from HB Marketing, Unit 3, Poyle 14, Newlands Road, Colnbrook, Slough, SL3 0DX. Tel: 0753 686000.

LIFE SAVERS

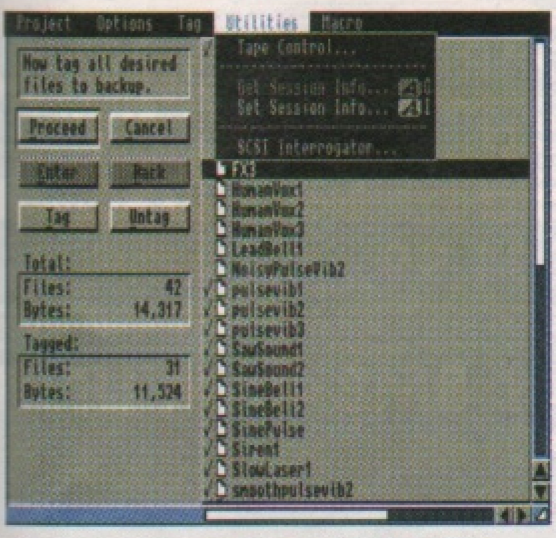
Returning to the main menu, the next option allows the user to recover deleted files from any disk. For this option to be successful, the disk must not have been written to since the required files were deleted. However,



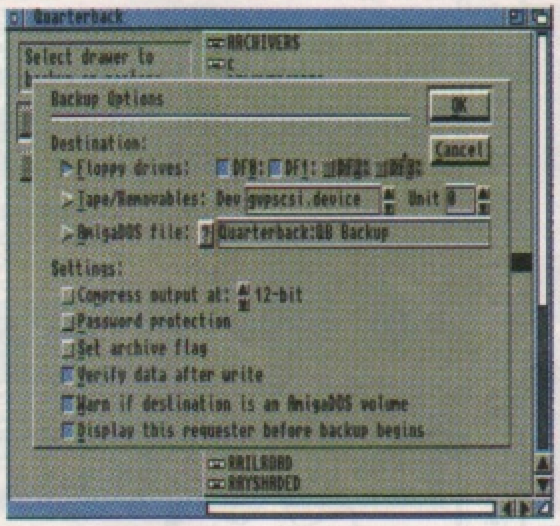
The Tag filter simplifies the file selection process by automatically including or excluding files from the selection. The files to be avoided or rounded up can be chosen at any point.



Shown here is *Quarterback*'s main menu screen. From here, the directories or files you wish to back-up are selected. This is effected simply by highlighting the required files.



Quarterback includes commands for controlling both SCSI devices and tape streamers in addition to the usual drives such packages support. It is flexibility such as this that raises it above most other disk utilities.



The back-up options menu allows the user to specify a password to protect their files from unwanted attention. In addition, the amount of compression used can also be set.

QUARTERBACK

. . . a t a g l a n c e

• An essential back-up utility • Simple to use • Can take ages to copy files • Plenty of support features • Works with accelerator boards

changes, the whole process is automated from there on in reverse order. After a back-up has been completed, subsequent 'updates' can be created using either date recognition or the status of the archive bit. Hence *Quarterback* can recognise which files have changed since your last complete duplication, and will only copy the new ones, speeding the process up considerably.

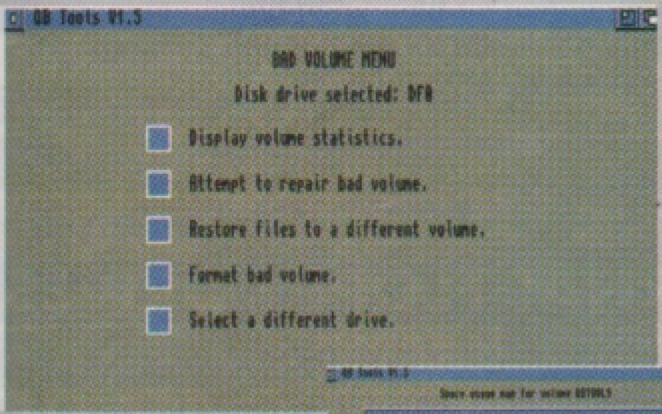
CONCLUSION

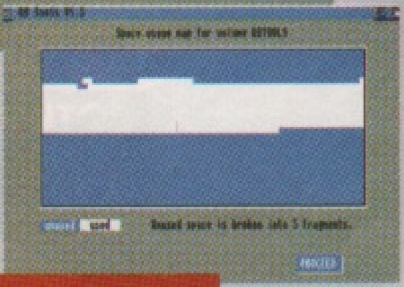
Quarterback is an essential program in a hard disk owner's library. If used in conjunction with an accelerator card, the compression routines can both save a lot of disk space AND reduce disk swapping by half. The program can also be used to store single programs which are too large to fit on one floppy, as it automatically spreads files across a number of disks if necessary. If your peace of mind is more important than the price of a couple of games, check *Quarterback* out. If not, you've only got yourself to blame when you lose all that data.

HB MARKETING £61.25

An essential purchase for all hard drive owners...

EASE OF USE	95%
VALUE FOR MONEY	75%
EFFECTIVENESS	90%
FLEXIBILITY	85%
INNOVATION	60%
OVERALL	**86%**





Among *QBT*'s many features is a fragmentation map which details how much space is left on the disk, and how it is distributed. It also acts as a good indication as to the status of the disk and the files on it. In addition, virtually every other statistic regarding the disk can be summoned, too.

Q/RBACK TOOLS

. . . a t a g l a n c e

• Can repair virtually any fault • Very comprehensive • Easy to use • Cheap for what it does • An essential floppy utility

even if this is the case, disks which don't use the newer fast file system may still contain unrecoverable files. When this option is invoked, a list of all files on the disk will be displayed, with the deleted ones highlighted in a different colour. These can then be restored either to the current disk, or to another one if required.

The three most valuable functions are to be found within the 'Volume Repair' menu. AmigaDOS disks are susceptible to more than one type of damage, whether they are caused by errors in structure logic, or by physical damage to the disk. *QBT* is capable of repairing almost all logic errors, and even when it can't repair them, it will still offer the opportunity to recover other files from the same disk. This is especially useful when damage has occurred to the root or directory sector of a disk, as these errors usually mean that you can't access other undamaged files.

By their very nature, physical errors are virtually irreparable and, in this respect, *QBT* is no more powerful than any DOS utility. However, in the case of hard disks, it offers one facility which is extremely handy. When a physical error occurs, unless told otherwise, the Amiga will continue to try and write data to that sector regardless of the fact that it's damaged. *QBT* lets the user mark it as permanently 'out of service', thus preventing the Amiga from writing data to it. In addition, disks which are so badly mangled that they don't even appear to be DOS disks, have separate repair menus which are accessed by setting the disk drive/volumes toggle at the beginning of the program.

CONCLUSION

Quarterback Tools is as valuable as it is easy to use. Its optimise functions are very impressive, and easily justify its purchase on their own. If you're a new user, you may never have encountered disk problems, but it's inevitable that you will sooner or later. It's only then that you'll appreciate the full value of this program. Make sure it's to hand when you need it, or risk losing data that could be worth many times more than the program itself! An essential buy.

HB MARKETING £71.47

A slick program which all floppy users should own...

EASE OF USE	99%
VALUE FOR MONEY	80%
EFFECTIVENESS	85%
FLEXIBILITY	65%
INNOVATION	75%
OVERALL	**82%**

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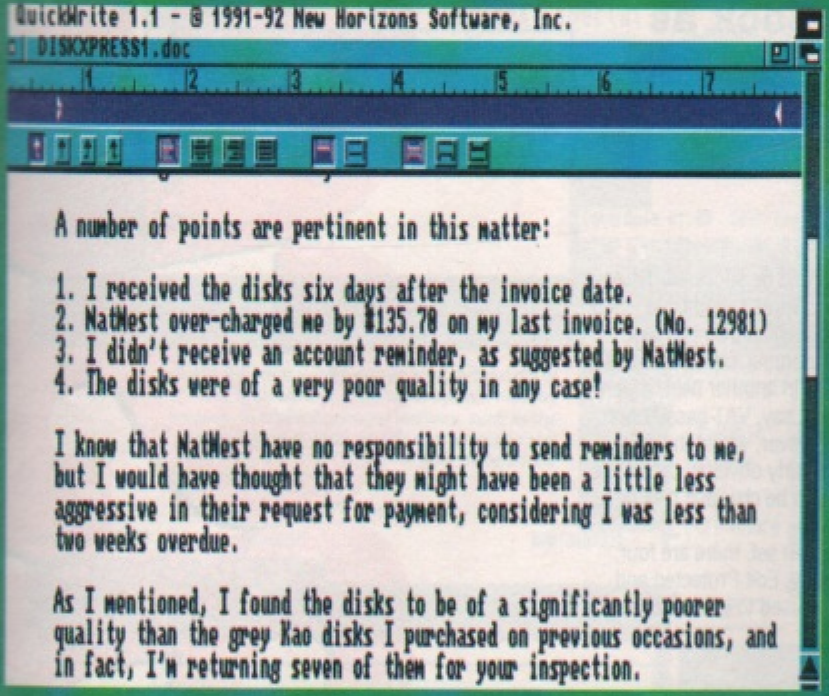
GET

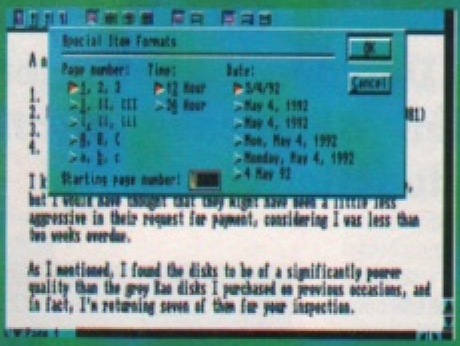
COMPUTER AND
CVG
VIDEO GAMES

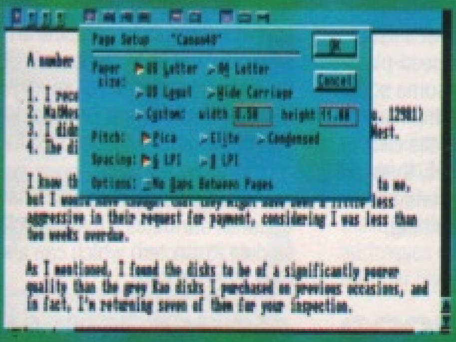


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TOP RATED

Left: The real boon regarding *QuickWrite* is how easy it is to get to grips with. Even normally complex routines, such as cutting and pasting paragraphs, is made easier than normal, and this makes lengthy documents much faster to battle through.

QUICKWRITE

Word processors are very much a matter of personal taste. Mat Broomfield asks whether you should be tempted by the latest offering from New Horizons.

SITTING ON THE FENCE

Word processors generally fall into two categories: the 'amateur' type which sport the most rudimentary of features and are designed with simplicity in mind; and the 'complex' variety, which are created to fulfil the every whim of the professional writer. *QuickWrite* is a mid-priced program which falls directly between these two stools. It feels very 'friendly', but also has many of the features associated with more up-market packages.

...RESS BOOK
QuickWrite costs ...43 plus VAT and is available from HB Marketing. Contact them at Concorde ..., Unit 3, Doyle ..., Colnbrook, Berks. ... Or call them on (0753 686000)

As can be expected of virtually any word processing package these days, *QuickWrite* has all the expected features, including word wrap, variable justification, and a moderate spell checking dictionary, but it also includes options such as ARexx support, headers and footers, definable tab types, and legibility indices.

The program has been written to give that Workbench 2.0 feel, even on 1.2/1.3 Amigas, and, to aid quick usage, requires but the most cursory of glances at the manual before you start using it. In addition, *QuickWrite* can be loaded either from Workbench or CLI and, via the latter, can be set to any screen resolution, including productivity and super hi-res (on 2.0 machines).

THE PRETENDER?

On initial appearances, you could be forgiven for thinking that the screen display had been loosely modelled on *Wordworth*, with its ruler for adjusting tabs and margins, and the bank of icons for justifying and spacing the text. However, unlike *Wordworth*, *QuickWrite* doesn't include variable screen fonts, which is fine as it means that the screen display has been designed exclusively around the one font it uses. This, in turn, means that screen text is always legible, and saves messing around with the screen format.

Once you begin typing, you'll find that the program can easily keep up with the fastest of typists – even when inserting text midway through a document. Block editing is also very easy, and doesn't require highlighting before you begin. Blocks of text can be highlighted in one of two ways: simply point the cursor at the the start of the block and drag it until all of the required text is highlighted; or, by using single, double, and treble mouse clicks. Once selects a word, twice for a sentence and three times for a paragraph. Additionally, tabs and margins are set via markers on a ruler at the top of the screen.

SIZING IT UP

Mentioning this ruler brings me to another plus point: all measurements are given in inches, centimetres, or points. Thus you can design both the on-screen layout and the printer preferences based on the size of your page, rather than its character dimensions. This in turn means that, although the program doesn't claim to be WYSIWYG (What You See Is What You Get), the printed page and on-screen text are closely related.

QuickWrite also supports auto-page numbering in a variety of formats, ranging from numbers and letters to Roman numerals. Dates, times, page breaks, numbers and counts can all be inserted in a document at the press of a few keys, or via the menu. The program also has a number of useful features for semi-professional use, of which the ability to use accents (acute, grave, circumflex, tilde and umlaut), is one of the best. It also lets you use headers and footers – small pieces of supplementary text which appear in smaller letters at the top of the page. These are created in a separate window, and automatically added to the document when it's printed.

Professional users will appreciate the ARexx support, which allows complex scripts to automate the functions of the program. A fairly detailed list of these commands is given, along with their usage, highlighting the fact that, although slender, the manual is more than adequate for its purpose – it certainly deserves an award for cutting the crap.

CONCLUSION

QuickWrite is a surprisingly big word processor in a deceptively little package, and I was completely at ease with the program for the entire time I was using it. Beginners will appreciate how easy it is to use, whilst experienced users will be delighted by the power hidden beneath its unassuming exterior. Thoroughly recommended!

QUICKWRITE *...at a glance*

* Loads of functions * Cheap for what it offers * Excellent cut and paste options * Concise manual * Auto page numbering

NEW HORIZONS £50.99

'No visible flaws. Simple to use, and good value for money!'

EASE OF USE	96%
VALUE FOR MONEY	90%
EFFECTIVENESS	95%
FLEXIBILITY	96%
INNOVATION	50%
OVERALL	**94%**

interbase

Mat Broomfield dusts off his Danish phrase book as he gets to grips with Denmark-based InterActivision's new database program. Will it save your financial bacon with its many functions?

GET ORGANISED

Regardless of how neat and tidy you are, there will still come a time when you'll need to organise some sort of information. Most of us do it on a daily basis without even realising it, whether it's using an address book, noting down a list of game cheats, or even to the extreme of buying a seed-planting calendar or recipe cards. Simply by creating some sort of organisation, you've created a database. So just think how handy it would be to have all this info available at the click of a mouse button. With the Amiga as popular as it is, there are obviously countless databases on the market, so what does *InterBase* have to set it apart from the others? Nothing, really.

BACK TO BASE-ICS

A database is designed for one purpose: the quick organisation and easy retrieval of important information. Courtesy of the Amiga, this can be in a variety of styles – including text, graphics, samples, and the like. Whereas some database packages are designed to organise specific catagories of information only. *InterBase* is much more advanced and attempts to support a wider selection than most of its rivals, including IFF screens.

Before you begin using the program, the fields (subject headings) you wish to categorise must be entered. This information makes up the bare skeleton of your database and defines the information it will hold. For example, if you were creating an address book, you would probably define the separate fields for the person's first name, their surname, address, and phone number; collectively, though, these details are referred to as a table or record.

DATA DAZE

Because the program handles the assorted types of data in different ways, the way the fields are treated – both on-screen and for storage purposes – must be specified. There are four data types: FString, DString, Number and Date – and each has a series of unique functions which they can perform. For example, data stored as a number can be used as part of a formula to calculate an entry in another field, which is particularly useful when calculating, say, VAT based upon the known retail price of an item. However, whilst the data types of Number and Date fields are fairly obvious, the subtle difference between F and DStrings can be crucial if disk or memory space is tight.

When a field's data types have been set, there are four, optional, attributes (Unique, Obligatory, Edit Protected and Update Protected) which can also be used to influence the data a user enters.

MOUSE MISTAKES

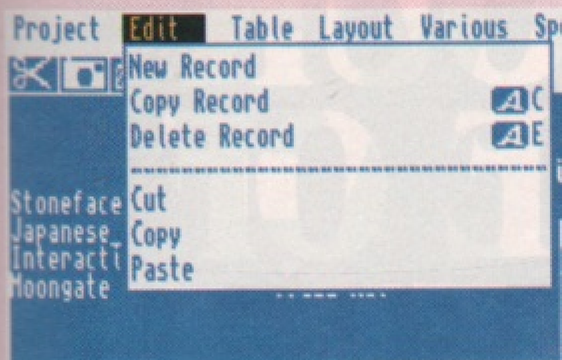
Once the fields of the database are determined, information can be entered. All additional input is entered by selecting the 'New Record' icon. The first field in your table will then be highlighted, and is ready for text to be entered. Adding new records is one of the most frequently performed tasks a database user will perform, and it can be irritating if there aren't any keyboard shortcuts to instantly summon an option. The key to a good database is one that allows the user to enter data fluidly and without interruption – ie. one that means that mouse is rarely required. However, *InterBase* scores a massive own goal here, and the package is made even more irritating to use because it automatically exits the 'New Record' mode once you've entered a record. Constantly reentering 'New Record' to add further files is extremely tedious– especially over prolonged stints of text entering.

WYSI WHAT?

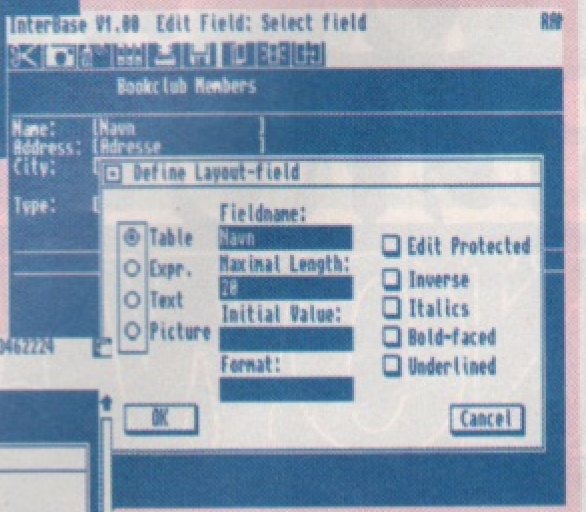
Having entered your records, *InterBase* also allows the user to edit the way they appear on-screen, and this leads us to



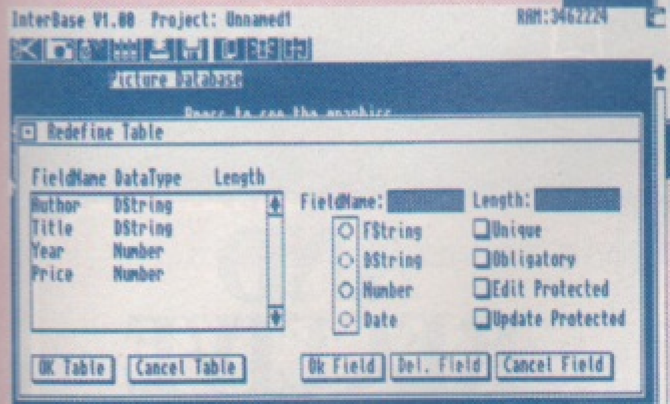
InterBase is fairly unique in that it can dtore IIF screens, this is an excellent boon and will aid many a disorganised graphic artist.



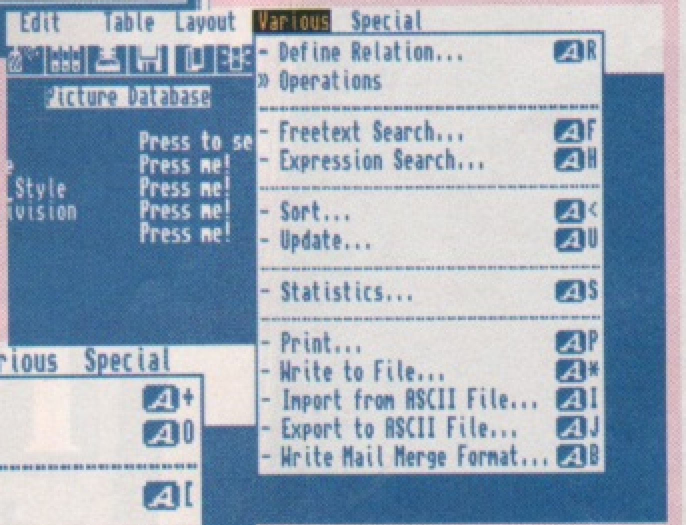
Left: Once records are stored, they can be summoned or copied using the package's pull-down menu system. In addition, there is also a cut and paste system where files, or parts of files, can be switched between tables.



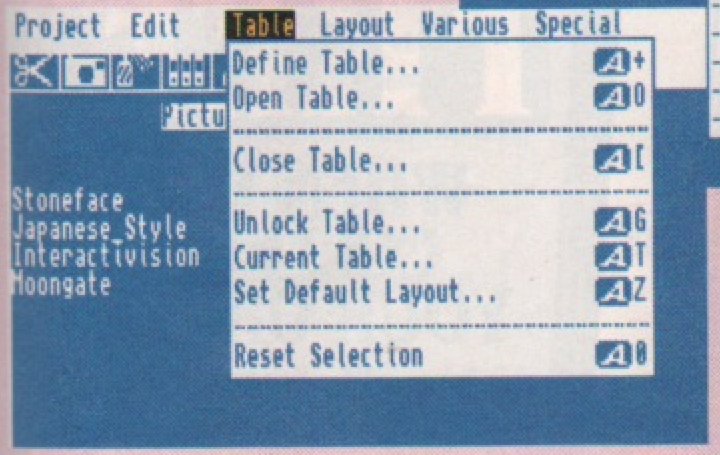
Right: Before the entering can start, full details of what you want your listing to contain must be entered. In addition, smaller features, such as the font and format used, can also be altered to suit your preferences.



Left: The files are easily edited, and everything is geared towards ease of use. However, the reliance on the mouse as a control mechanism soon proves annoying, and a single keypress system would have been greatly preferred.



Right: The ability to swap files between categories is excellent, and saves a great deal of time. In addition, it isn't necessary to send the entire file over, and the present files can easily be cut down to suit any difference's in another category's preference list.



Left: *InterBase* doesn't seem to offer anything particularly new, but its unassuming presentation actually hides its great potential. It is one of the better low-price databases, and is certainly up to the standard of such past InterActivision products as *InterWord* and *InterSound*.

DANISH DELIGHT

This is InterActivision's fourth Amiga utility, and looks set to strengthen their reputation as a serious publisher of good quality software.

Their earlier utilities (*InterWord*, *InterSound* and *InterSpread*), were famed for their ease of use, and were further distinguished by their 'handy icon' system. This places icons representing the most commonly-used features at the top of the screen so that they're always readily accessible. *InterBase* continues this format, and although its system of icons is not quite as friendly as the *SuperBase* video-style controls, they're definitely a step in the right direction.

one of *InterBase*'s most powerful features, WYSIWYG! In case you're not familiar with the acronym, it stands for 'What You See Is What You Get', and, in this case, it means that exactly what is displayed on screen is what will end up on the printed page. Therefore, you can design the layout of a page, confident in the knowledge that it'll look just as good when printed. It also means that you don't have to mess about designing separate printer forms.

INTERBASE
. . . a t a g l a n c e

• Desperately needs single key input • Excellent cross-referencing • Excellent for use with hard drives • Very user-friendly • Good value

A page layout consists of three sub-layouts known as the head, body and foot sections. The head and foot sections are used to display constant information, such as page numbers, titles, and column headings, whilst the body sub-layout is where the actual records are displayed. Each record consists of two elements: the title and the data field. The title is primarily used for cosmetic purposes, and indicates the contents of the data fields. The data field, though, specifies how and where records will be displayed. These two elements can be freely positioned on the screen so that complex records can be displayed as forms, whereas simpler ones will be shown in list format.

OUT IN THE FIELDS

Although a Database can hold dozens of fields, it probably won't be necessary to have them all displayed at once. For this reason, *InterBase* allows the creations of a variety of layouts for the same database, thus offering a choice of 'looks' most suitable for an application. For instance, when accessing an address book, you may only need to see people's names and phone numbers rather than the entire list. As these can be displayed in a list format, whereas the complete addresses couldn't, it would make sense to define a phone number layout as well as an address layout.

GOOD RELATIONS

This leads neatly on to what is probably the program's strongest feature: it's a relational database. Basically, this means that, as well as the ability to produce multiple layouts for the same database, you can even have layouts which include information from other databases.

As an example, suppose you were running a business. As well as a list of your products and who had bought them, *InterBase*'s relational capabilities allow the cross-referencing of data. This means that, rather than storing all the addresses several times, each customer simply needs to be given a reference point which relates to a record in a separate address database. As a consequence, you can now create any number of additional databases, whilst still only requiring a single customer address file.

InterBase also includes a variety of useful search options, and these can apply to both text and numerical fields. One of the most interesting search modes uses a variation of Boolean logic to perform inclusive and exclusive retrievals. This allows searches where, for example, only records beginning with 'S', and which have the word 'Sausage' in them will be displayed.

ADDRESS BOOK
***InterBase* costs £49.95 from Scandlasoft, Unit D4, Nupend Business Centre, Nupend, Knebworth, Herts, SG3 6QJ. Tel: 0438 821055.**

CONCLUSION

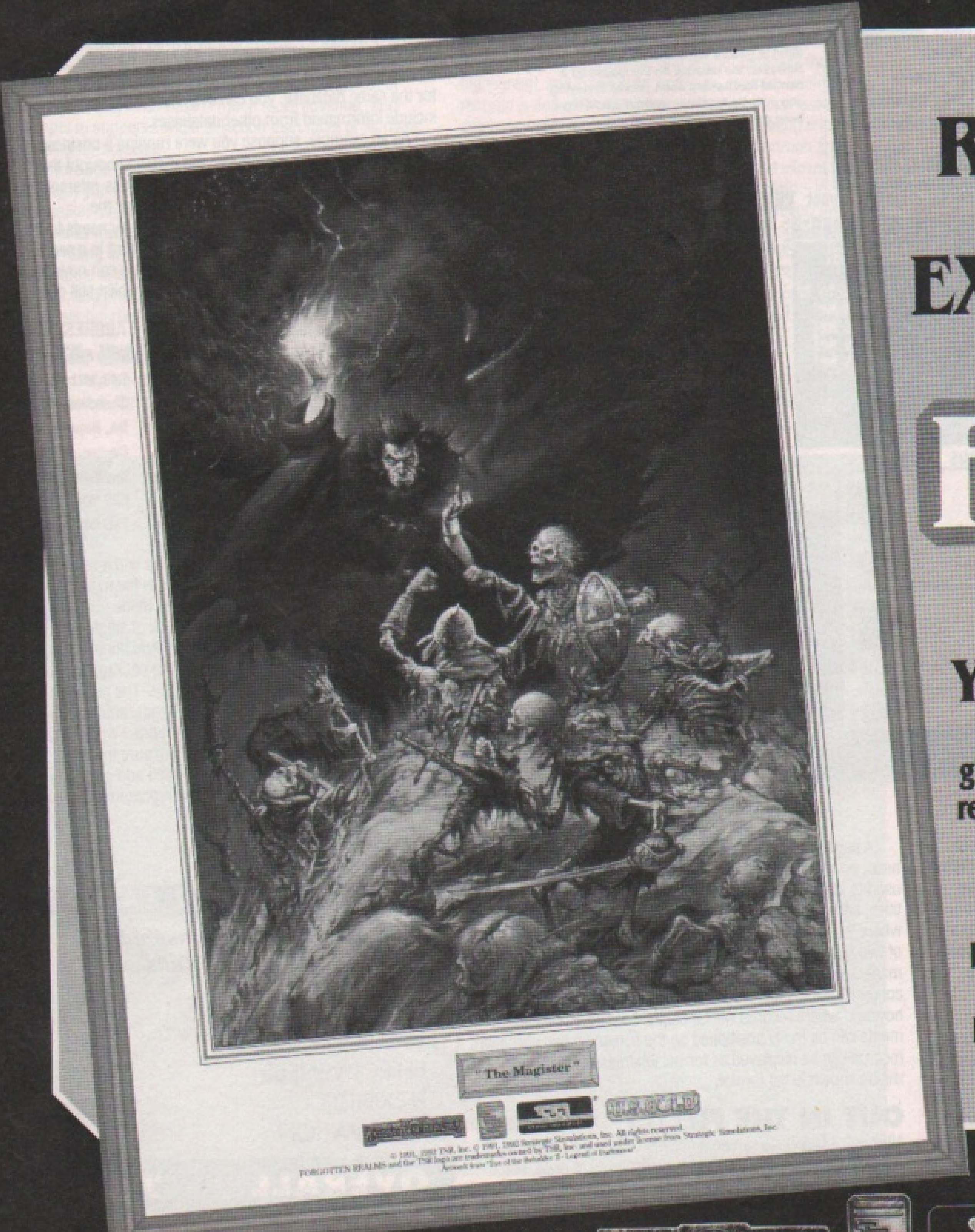
InterBase is a high-quality database system and it seems that flexibility and reliability have been given the highest priority. Having said that, entering records is made unnecessarily tiresome because of the lack of single-key input and the need for opening new files. Additionally, the instruction manual is weak, and makes the package appear considerably more daunting than it really is. The program can exchange databases with other packages, and can also be used to create mail shots using *InterWord*. I would have liked options for other data types, and I'm sure that this could have been achieved using a field-type add-on module. Despite its shortfalls, though, *InterBase* represents fair value.

INTERACTIVISION £49.95

A fairly-priced database with some annoying shortfalls...

EASE OF USE	75%
VALUE FOR MONEY	70%
EFFECTIVENESS	80%
FLEXIBILITY	90%
INNOVATION	25%
OVERALL	**78%**

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NEXT MONTH

THE CU AMIGA SUMMER SPECIAL

Look out for the July issue of CU Amiga as it's going to be something special! A summer special to be precise. As well as covering all the latest developments concerning everyone's favourite machine, we're going to be presenting mammoth buyer's guides to all the software that'll be appearing over the coming months. If you want to find out what's coming up soon, then be here next issue as our team of Amiga experts give their opinion on what's hot and what's rot.



DISK BONANZA

That's right, we've done it again, and secured another full-price program for our fabulous coverdisks. What's it going to be? Well, that's a secret, but make sure you reserve a copy now or risk disappointment! As well as a full-price commercial program gracing our ever-popular cover disks, there will also be a massive collection of other utilities on offer and, of course, the very best in playable demos. That's right, CU have teamed up with Electronic Arts, Gremlin and Entertainment International to bring three of the hottest new games to your attention. If that wasn't enough, we've also got several complete games on offer.

GAMES FRENZY

Who says there are no decent releases over the summer months. Not us, that's for sure, and you won't either after you've read our reviews of some of the best Amiga games yet released. You've probably read about *Risky Woods* in this issue's First Impressions and next month you'll get the chance to not only play the game but to also read our in-depth review on what is probably the best arcade game ever! Also on show will be Gremlin's *Zool*, EI's *Magic Boy*, *Megatraveller 2*, *Guy Spy*, Peter Turcan's *Dreadnought*, Ishar from Silmarils, and the new game from the Bitmap stable – *The Chaos Engine*.As K-Tel records used to say: 'all these and much, much more...'

CDTV

With the CD-Rom drives impending release, we begin a regular look at all things CD. If you're considering buying the A570 or the CDTV, don't miss out on this amazing new section that will keep you abreats of everything new.

DO-IT-YOURSELF

Delayed from this issue, out first DIY feature kicks off with details of how to make a joystick/mouse converter which can switch between the two at the click of a button.

GET SERIOUS

If you want to get serious with your machine, then read the reviews that count. Technical Editor, Nick Veitch, sorts the wheat from the chaff and recommends the very best quality programs for your machine. Under the microscope next month will be the long-awaited *V-Lab* digitizer, *Video Studio* (a complete package of titling and video controls), and the new *DPaint 4.1* with its scaleable fonts facility.

PUBLIC DOMAIN

An eclectic mix of utilities, games, music and animation go to make up the best PD coverage of any magazine. Read Steve Keen's and Mat Broomfield's authoritative reviews on all the latest releases.

NEXT ISSUE
on sale
June 26

DETAILS SUBJECT TO CHANGE WITHOUT NOTICE



megamix master





Megamix Master's simplistic-looking control panel belies its true power, and makes it look very run of the mill.

Want a sampler that does more than just record sounds? Tony Dillon checks out Rombo's *Megamix Master* which could be just what you're looking for...

SOUND FOR BEGINNERS

There are a lot of Amiga musicians unfamiliar with the machine's sound capabilities. Personally, I'm more of a 'play-the-real-thing' musician, and have never really got into the world of samples and other digital marvels. I've always shied away from such packages, as they have always been surrounded by an air of 'you have to understand how a sample works before you can use this'; besides, manuals with more than two-hundred pages disturb me slightly. As a consequence of this, I've always stuck to my humble DX7 and good old *Music X*. After looking at Rombo's *Megamix Master* for a couple of minutes, though, my outlook has changed completely.

Like most samplers, *Megamix Master (MM)* is split into two parts. First of all, there's the hardware itself. It's nothing too impressive, just a small unit measuring two inches square, with male and female parallel connectors on opposite ends of the box, and a three-foot cable sporting a 3.5mm stereo jack plug at the other end. The unit is designed to plug straight into the Amiga's parallel port, with any other parallel peripherals you may have slotting into the rear end of the cartridge. The jack plug is the entry port for your sound, and is connected to whichever sound source you are going to use.

UP AND RUNNING

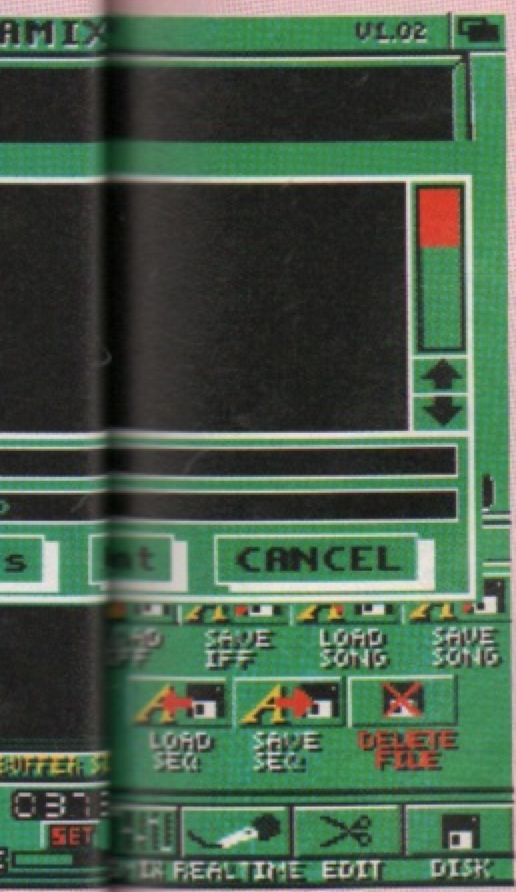
The second integral part of the package is the software needed to drive the cartridge, and the package provided is quite simply one of the most powerful I've encountered. The packaging states, as most do, that you can just plug in and go. In this case, though, I don't think I've ever seen it so true. When loaded, the screen splits into the customary main panel and secondary icons, with an oscillator displaying the current levels for left and right channels. The beauty of the package is that, within two minutes of loading, I had successfully sampled and trimmed a guitar sound pulled from a Metallica song. The system goes something like this...

Clicking on the record button reveals a message indicating that the package is monitoring, and clicking again will start the recording. At this point the Amiga is playing the sound currently coming from your sound source. Click at the moment you want to start recording, and again to stop. The program will stop itself if the 127K buffer is filled (between 2 and 20 seconds dependent on the quality of sample you require). Clicking play will then replay the sample. Should you want to trim it, move the mouse to the waveform displayed at the top of the screen, using the left and right buttons to select the start and end of the range you want to cut, and then click on an icon to erase that part of the sample. It's a system which virtually every sampler user will be familiar with, but it's incredibly simple and easy to use so why change it?

As you can tell from that little example, *MM* is designed to be very easy to use. In fact, it's so simple, that you could be misled into thinking that it's a rather basic package. Wrong. *MM* is busting with features and effects. Not only can you sample, edit and save sounds, you can also add all manner of

ADDRESS BOO

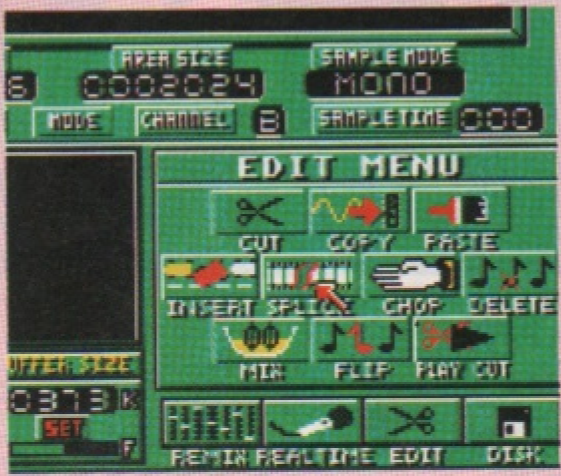
Megamix Master cost £39.95, and is available from Rombo Productions. For more information, contact them at Baird Road, Livingston, Scotland. EH54 7AZ. Or call on (0506 466601).



Left: Your samples can be saved at any stage during their development, but it is wise to save each step in their development. This then means that if you aren't happy with an effect, you can simply restart from the last saved position.

Right: Mega Mix Master features an extremely useful effects utility, which allows the user to incorporate additional effects into their work. These effects range from echos and fades, to more complex phase shifts. In addition, although this may seem a little memory-intensive, thanks to the package's excellent compression routines, up to 50% of the sample's memory can be saved. In addition, further memory saving can be obtained by making good use of *Mega Mix*'s excellent loop capabilities.





QUALITY VS MEMORY

It's something we will all come across someday – one of the world's unsolvable problems. Forget the Chicken and the egg, how much do you give and take when it comes to handling samples? They're memory hungry beasts, and the higher quality they are, the more memory they devour. For example, if you were to sample a piece of music in mono at a very low setting (5000Hz. for example), you'd get appalling recording quality. If you were to go the other way, and sample at a high setting, say 18000Hz, you would come close to perfect recording – except that 300K will now only give you four seconds of recording time! Learning to manage your memory is one of the tricks of good sampling.

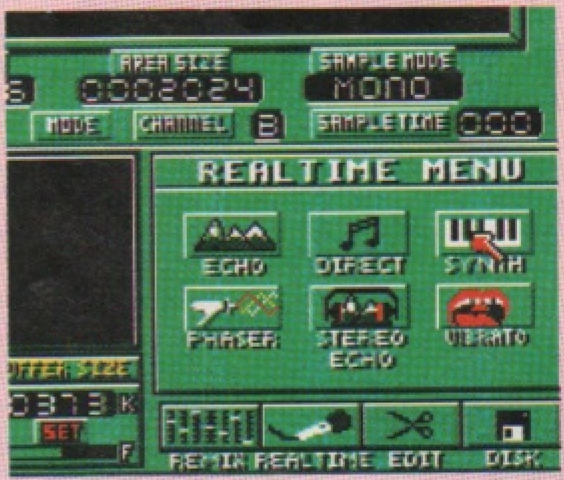
Megamix Master, like all samplers, allows the user to adjust the frequency they sample at – however, it's not advisable to go any lower than about 8000Hz, as quality deteriorates drastically below that point and distortion will creep in. While you are changing your frequency, a box at the top of the screen details exactly how many seconds a sample of the current length will last at that frequency. You can save memory if you cut corners.

For example, if you have a passage that consists of one instrument playing a melody (a guitar playing a solo, for example), then simply sample one note and then play it back at different pitches to recreate the melody. It may not sound as good as the original, but it will save valuable memory.





Displayed at the top of the screen is the current waveform, whilst the rest of the area is given over to the utility's many icons – all of which are pretty much self-explanatory.





Editing a sample is simply a matter of cropping the sine pattern at either end. This then deletes any initial silence and forms the basis for loop construction.

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effects to them as well as add effects to real-time sounds, such as echo and phase. This will prove invaluable for a home karaoke session, and can even perform simple four-track recording and sequencing.

The main screen is broken up into three parts. At the top of the screen is the current smaple's waveform. This is where all of your editing commands are put into effect. Below this, to the left, are a pair of oscilators, offering the user a continuous update of the sound source's levels. Below this are four icons to control the recording and playback, along with access to MIDI and sequencing panels. Finally, to the right of this block is a window which houses one of four control panels: an editing menu, an effects mixer, a real-time effects mixer or disk options.

MEGAMIX MASTER
. . . a t a g l a n c e

- Clear, pleasant presentation. • Instant results
- Wide range of editing options • Cheap at twice the price!

A SOUND DECISION

Once recorded, a sample can be tuned to your requirements, and can be edited via the edit panel. A sample can be trimmed, mixed with another, reversed, or doubled onto itself. All actions are done by selecting two points on the waveform before clicking on the appropriate icon. Additionally, to add effects to a sample, there's a full complement of effects, including echo, phase shifter and fades. The sound can also be amplified or silenced, and even compressed to half size. This speeds up the sample somewhat so, to return it to normal, simply play the sample at half speed.

One of the package's highlights is the real-time effects generator. A bank of six effects can be added to the sound coming into the Amiga. This feature will be great fun at parties as drunken wannabes try to sing with vibrato with a strong stereo echo added to their voices. On top of that, you can also add synth distortion or, for the Doctor Who fanatics, there's a definable phase shifter, so you can pretend to be a Dalek.

PLAYING AROUND

The four-track recorder and the sequencer are both simple ways of controlling playback of multiple samples. This utility allows the user to play up to four samples simultaneously, by assigning each sample to a separate sound channel. The sequencer then lets you play samples in a specified order, thereby building up a track.

Using *Megamix Master*, you can't help but be impressed at its simplicity of design. The software is bursting at the seams with features, yet even an amateur like myself will have no trouble staying completely in control, whether it's those first recordings or if you have moved on to sophisticated sound shaping. The layout is very logical, and extremely easy to control via the mouse.

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BUYERS guide

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In the second part of our in-depth guide to Bubblejet printers, John Mallinson looks at the slightly more desirable (and expensive) mid-range models...

PART 2

MID-RANGE MODELS £400-£500

For those of you who are realising your printing needs are going to require a slighter dearer and, hence, better-quality printer, the range here are just for you. All use the Canon mechanism and offer that little bit more than their cheaper counterparts...



HOW WE SELECTED THE PRINTERS

Our comparison test is designed to bring you practical, objective information on Bubblejet printers, which are increasingly popular because of their high print quality, lack of noise, and general value for money. The printers we've selected are all priced between £400-500, but can be picked up for less if you shop around. Each printer was tested with several programs to gauge how well it worked with standard Amiga software, its ease of use, speed and the quality of print.

HP DESKJET 500

ESSENTIAL BUY

Hewlett-Packard's mid-priced Bubblejet offers excellent value-for-money

I first bought a DeskJet in 1989. Along with the Canon BJ10, it has been responsible for popularising Bubblejet printers, and both have sold in large numbers. The 500 model is faster than its predecessors, has better fonts and improved graphics printing.

Partly due to its popularity, the DeskJet is inexpensive for what it offers, and the price fallen to half what it was when I bought one. Another sign of success is that you can use all of the major programs on the Amiga with it. In fact, if you can't find a DeskJet printer driver, you can use one for the LaserJet (a very different machine but one which understands the same commands).



'Architectural' is the word that always springs to mind when I look at it: stark, compact and odd-looking – a sort of poorly-dressed Danny DeVito. The bottom storey is the cut sheet feeder, the first floor is the tray for collecting paper, the attic houses the print mechanism. Power and printer cables plug in right underneath – awkward to do, but then nothing sticks out at the back. Conveniently placed on the front are the on/off and DIP switches. The control panel has eight buttons and a collection of lights to show you ➤

hubble bubble

what is happening: it is an easy printer to control.

The print quality is superb, both from the three internal fonts (Courier, Letter Gothic, Times) and when printing in graphics mode. Rasters (areas of even tone) often turn out stripey on inkjets and dot matrix printers. The DeskJet was the best of the ten in this respect, although Marian came out better on the Fujitsu and Citizen.

VERDICT: HP DESKJET 500

All-round printer with excellent results. Probably the best reviewed.

DESIGN	90%
CONSTRUCTION	75%
EASE OF USE	85%
PRINT QUALITY	90%
SPEED	80%
FLEXIBILITY	80%
INSTRUCTIONS	80%
VALUE FOR MONEY	90%
OVERALL	**90%**

Hewlett-Packard
Courier
Times Roman
Letter Gothic
Draft mode
Italic, **bold**, un

The Deskjet 500's Courier, Times and Letter Gothic are the same as the other four Deskjet-based machines. To me, the DJ500's Times looks better than the others, but there's very little in it. It's fast enough, and there's a superb range of font cartridges.



The Deskjet 500's graphics printing is excellent overall, although it is slightly more striped than the Projet and B200. If you need better than this, you have to pay three times as much and get a laser printer.

SMALL PRINT
Price (RRP ex vat) £499
Ink cartridge (500,000 chars) £13
Ink cartridge (1,000,000 chars) £21
Epson/IBM emulation cartridge £60
Font cartridges £60-106
128k RAM card £134
Manufactured by Hewlett-Packard 0344-360000

CITIZEN PROJET

Citizen aim for versatility.

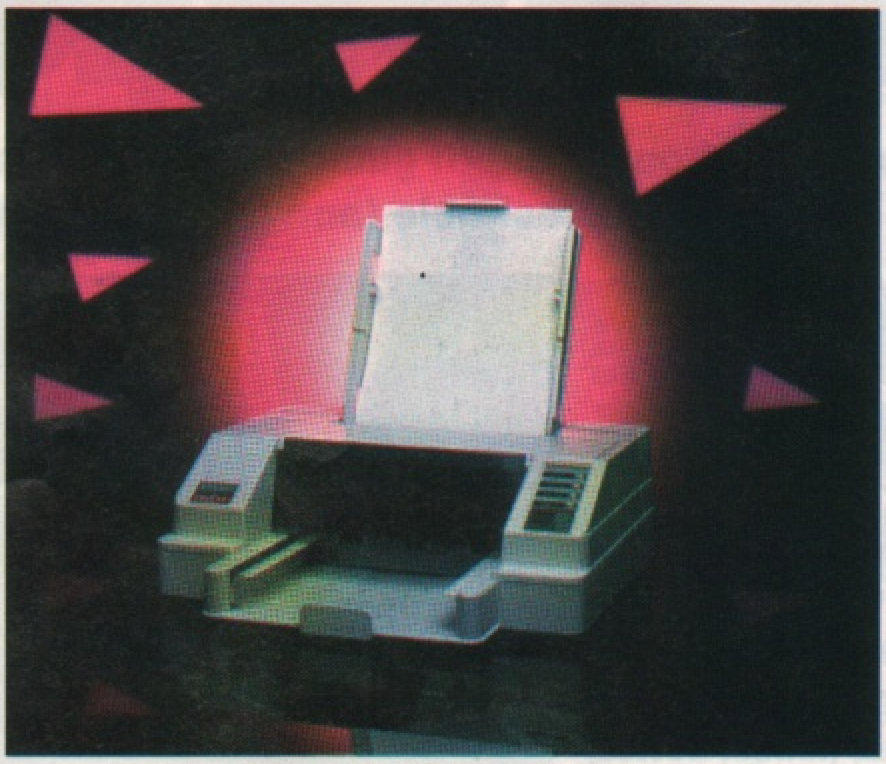
Citizen has a good reputation for their cheap but excellent dot matrix printers, so it's as clear that they can't go far wrong by choosing to model their first Bubblejet on the DeskJet.

The sharp lines of the DeskJet have been rounded and squashed, but its clean look is broken up by a paper loading cassette sticking out of the roof. This is ungainly but practical: the paper exits into a tray at the front (as with the DeskJet). Extras include a tractor feed mechanism or second, cut-sheet bin underneath the printer – neither were available for testing on this or the Fujitsu which has the same arrangement. There are two slots for plug-in memory, emulation or font cards.

The control panel has four buttons and a four-position selector switch, giving four sets of functions to each button – not a DIP switch in sight. When you move the selector, the labels against the buttons are changed so that their new functions are obvious. I like this simple way of doing things.

Simplicity even permeates in to the three printing qualities and speeds: letter quality, draft and high-speed draft which are fastest when used with the Projet's internal typefaces – Courier, Times Nordic, Letter Gothic, and there's a special font for the high-speed draft mode – these are all clean and good-looking. Font selection is from software or from the control panel, and you should have no difficulties with software incompatibility.

Good quality print, adequately fast, sensible and versatile paper feed arrangements and a well thought-out control panel make this an easy and enjoyable printer to use.



Citizen Projet
Courier
Times Roman
Letter Gothic
Draft mode
Italic, **bold**, un

The Citizen Projet has very good internal fonts and a useful high-speed draft mode. There are lots of extra font cards.



Graphics printing on the Projet is significantly slower than on the DeskJet, but areas of even tone are less stripy.

VERDICT: CITIZEN PROJET

A good DeskJet offspring with funny looks and some nice controls.

DESIGN	85%
CONSTRUCTION	75%
EASE OF USE	85%
PRINT QUALITY	85%
SPEED	75%
FLEXIBILITY	85%
INSTRUCTIONS	80%
VALUE FOR MONEY	85%
OVERALL	**83%**

SMALL PRINT
Price (RRP ex vat) £496
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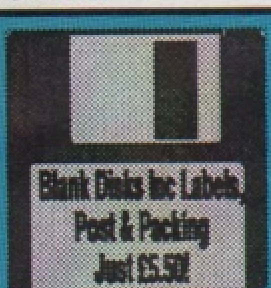
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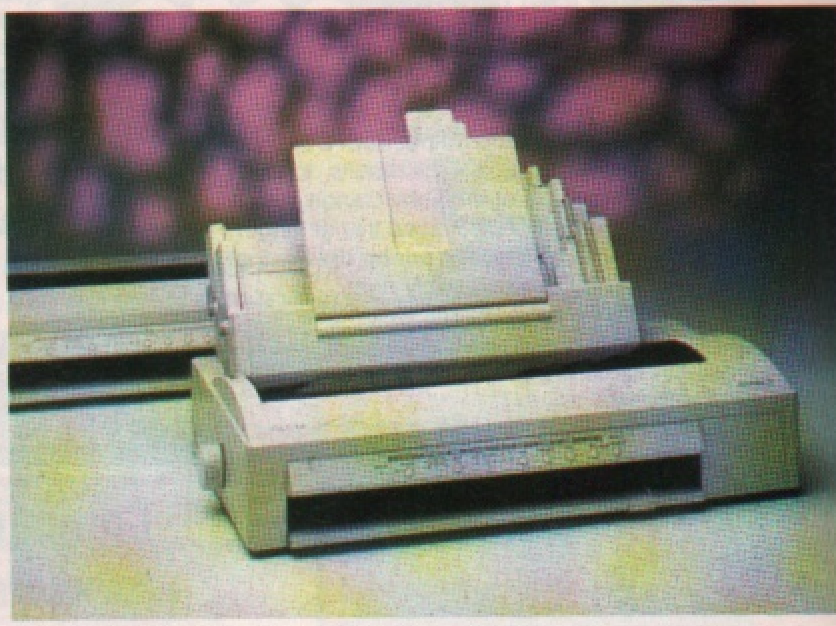
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FUJITSU B200

Fujitsu slow things down a little...

B200 – could that be Bubblejet 200 perhaps? No. 'B' here stands for 'Breeze' and whilst it may be poetic in Japanese, in English it sounds more like a cleaning spray than an excellent printer. This machine is very similar to the Citizen – essentially resembling a DeskJet with its corners rounded off.

The paper feed arrangements are the same – in fact, all the optional extras seem identical. The only significant difference is in the control panel: the B200 uses a layout like the DeskJet's but with odd little rubber pimples for switches. The printer also boasts four slots, two of which are obviously for font cards, but the other two remain a mystery. The Fujitsu and Citizen are identical in fonts, performance and print quality.

This is an excellent machine, but apart from that there's little to say – I've said it all before when describing the DeskJet and Citizen!

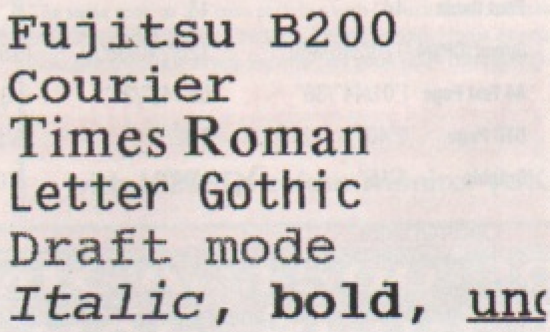
VERDICT: FUJITSU B200

Near-identical to the Projet — look at them both.

DESIGN	85%
CONSTRUCTION	75%
EASE OF USE	75%
PRINT QUALITY	85%
SPEED	70%
FLEXIBILITY	85%
INSTRUCTIONS	70%
VALUE FOR MONEY	85%
OVERALL	**80%**

SMALL PRINT

Price (RRP ex vat) £499
Ink cartridge (500,000 chars) £13
Second sheet feeder £115
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Font cards £61
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Manufactured by Fujitsu Europe Ltd. 081-759 0005



The Fujitsu B2' 00 produces the same fonts as the Projet and the Olivetti JP150.



The B200's graphics are of exactly the same quality as the Projet. The definition is particularly good.

CANON BJ300

A trade-off of speed against quality?

After the DeskJet, this looks distinctly conventional, but it is nicely styled and well made with emulation modes for the IBM Proprinter and Epson LQ series. The control panel sits along the front; below it is a slot for loading single sheets, and you also get a tractor feed device for continuous stationery. A cut sheet feeder (not tested) is an optional extra: it sits on top of the machine and you can add a second bin so that you can swap between different types of paper at the press of a button.

The ink reservoir is not part of the print head, but fits in a chamber in the body of the printer. This allows a larger ink volume and cheaper cartridges, which should make printing costs cheaper than on the HP-type machines.

Paper position, typeface and size are adjusted with the control buttons whilst an extra button (only effective in Proprinter mode), entitled 'Lock out' locks any font or size settings that you make on the panel and prevents your word processor from over-riding them – a useful feature.

There are three built-in typefaces (Courier, Prestige, Gothic) which can be printed in a variety of styles, including outlined and shadowed, reversed and shaded – very useful all these extra styles but you need to make sure that your word processor will let you use them. Normal text printing is fast and there is a high speed mode which gives excellent quality at the rate of

SMALL PRINT

Price (RRP ex va £499
Ink cartridge (1,000,000 chars) £13
Sheet feeder £135
Serial port £100
Font cards £95
128k RAM card £170
Manufactured by Canon (UK) Ltd. 081-773 3173

hubble bubble

three pages a minute.

Graphics printing and output from Calamus are disappointing though – the results don't match the standards of the baby Canon, and it takes longer to print. I discussed this at length with Canon who blamed the printer drivers that I was using. They were probably right.

The BJ300 is an excellent, well-made machine which prints text fast and well, but it's a pity that I couldn't get better DTP and graphics performance.

Canon BJ300 - Ep
Courier
Prestige
Gothic (sans ser
Draft mode
Italic, **bold**, un
Outlined
Shadowed

The Canon BJ300 produces high-quality fonts which print with satisfying speed. It's good for both home and office use.



Canon suggest that the disappointing quality and speed on the BJ300 are due to incorrect printer drivers: the jury is out on this. Check it out to make sure.

VERDICT: CANON BJ300

Fastest text printing at its price but with questionable graphics printing

DESIGN	90%
CONSTRUCTION	80%
EASE OF USE	80%
PRINT QUALITY	85%
SPEED	75%
FLEXIBILITY	85%
INSTRUCTIONS	70%
VALUE FOR MONEY	90%
OVERALL	**80%**

GROUP SUMMARY

There's a saying that 'you get what you pay for', and the extra outlay for the printers covered certainly proves it. All the units were excellent, and are recommended.

The BJ300 is the fastest of the group for churning out text, but it's let down as a general-purpose machine by its graphics printing.

Hewlett-Packard really makes life difficult for its competitors. The DeskJet is the fastest for complex DTP output, second fastest in the group for text. Moreover, although our prices don't show this, you'll probably find that it's the cheapest to buy in the shops. HP's ink is cheaper, too, but you can fit the HP cartridges to the other machines.

Choosing between the Citizen and Fujitsu is largely a matter of visual taste. I liked the look of the Fujitsu better, but preferred the Citizen's control panel arrangements. Their only advantage over the DeskJet is that you can fit a second cut sheet feeder or tractor feed.

Comparison Table:

So, how do the ten Bubblejets we tested this issue compare in features?

Printer	Citizen Projet	Fujitsu B200	Canon BJ300	Epson SQ870	Brother HJ770
Size in cm (h,w,d)	14.7, 42.5, 45	14.7, 42.5, 45	13.7, 45.8, 34.7	20.5, 49.2, 32.5	13.7, 59.2, 34.7
Weight (kg)	9	9	6.9	9.5	9
Resolution	300dpi	300dpi	360dpi	360dpi	360dpi
Memory	8K	8K	30K	128K	64K
Emulation 1	HP, EPX*, I*	HP, EPX*, I*	EP, I	EP	EP, HP, I
Typefaces	4	4	3	9	6
Paper Feed2	SF, TR*	SF, TR*	SS, TR, SF*	SS, TR, SF*	SS, TR, SF*
Interface3	P, S*	P, S*	P, S*	P, S*, L*	P, S*
Memory Cards	128/256K	128/256K	128K	-	128K
Font Cards	14	15	4	-	1
Speed (CPS)4	120/240/360	120/240/360	150/300	200/550	150/300
A4 Text Page	1'01/44"/36"	55"/43"/35"	31"/18"	34"/18"	46"/36"
DTP Page	2'40"	2'32"	5'8"	1'43"	1'20"
Graphic	1'15"	1'04"	1'01"	56"	58"

* Optional extra
1 HP=Hewlett-Packard DeskJet/LaserJet, EP=Epson LQ, EPX=Epson FX, I=IBM Proprinter, C=Canon Bubblejet
2 SS=single sheets, SF=sheet feeder, TR=tractor
3 P(arallel), S(erial), L(ocaltalk)
4 Manufacturers' rating

Are Bubblejet Printers Better – Or Just Different?

Compared to the older and more widely-used dot matrix printers (DMP) there are advantages and disadvantages with bubblejets. . .

- Because it is firing pins at the paper the DMP is noisy. Bubblejets are 'non-impact printers' and much quieter, although they're not as silent, as some ads would have you believe.
- The dots produced by a Bubblejet are smaller than those of a DMP so that, on the whole, they produce finer print.
- Several Bubblejets have a built-in cut sheet paper feeder, which is very convenient.
- Bubblejets have fewer moving parts so may be more reliable.
- Bubblejets cost more to run (typically about 3p per page), as their ink cartridges are more expensive than a DMP's ribbon
- DMPs can be used with multi-part stationary, or to make carbon copies – bubblejets can't.
- Most inkjets use water-soluble ink which may smear if it gets wet. (Hewlett-Packard produces a waterproof ink)
- There are many different arguments both for and against bubblejets – they have a mixed use. Yet manufacturers see Bubblejet sales increasing at the rate of half a million machines a year in Europe, and this will be largely at the expense of DMPs

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UK Spec.

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- **Dust Cover**
- **10 Blank Disks**
- **Plus 3 Extra games!!**

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All Star printers inc ribbons, free std printer cable and 12 month guarantee

The Star LC20

Replacing the famous LC10, the LC20 is faster at 180cps draft and 45 cps NLQ. It's also quieter. The front panel now has push button operation replacing the old LC10 membrane panel. Other spec is similar to LC10.

now only £139.99!!

New Star LC24-20

24 pin quality at the price of many 9 pins. 210cps draft, 604cps in LQ, 16k buffer expandable to 48k, 10 resident fonts, LCD front display, Auto emulation selection

only £199.99

Star LC24-200

Mono and colour. 222 cps draft and 67 cps LQ. 10 resident fonts. A4 Landscape printing

only £229.99 mono
or £289.99 colour

Star XB24-200 Colour

The choice of many professional organisations, this printer comes with one year on-site maintenance. 332 cps draft, 100 cps LQ. 29k buffer exp to 189k, 4 super LQ fonts and 14 LQ fonts

now only £379.99

Star LC200

Colour 9 pin printer with 8 resident fonts and a high speed of 225cps draft and 45 cps in NLQ. A4 Landscape printing

now only £199.99

Star printer accessories : Dust covers from **£4.99**. Printer stand just **£7.99** when purchasing printer. Mono ribbons from only **£3.69**

THE STAR SJ48 BUBBLEJET

With Epson LQ and IBM Proprinter emulation. The SJ48 is a revolution in printer technology. The quality is almost as good as an expensive laser printer yet costs less than many 24 pin printers. Portable in size, very quiet, and faster than most dot matrix printers at **100 cps in LQ.** Printer cable included

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Auto sheetfeeder £52.99

THE NEW EPSON 4100

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only £719.99

Toner cartridge £59.99

CITIZEN PRINTERS

All Citizen printers inc. free printer cable and come with a full 2 year warranty!

The Citizen Swift 9 Colour

Unbeatable value colour printer. 4 resident fonts, 192 cps draft and 48 cps in NLQ. Highly recommended. This printer is also available in a wide carriage (136 column) version

only £194.99 (80 col)
or £314.99 (136 col)

The New Citizen 224

A replacement for the famous 124D, the 224 now comes with the option to upgrade to a high resolution colour printer. If you want 24 pin quality, you want to print in colour if necessary and you don't want to spend a fortune, the new 224 is an ideal solution. Using the same technology as the Swift 24, the 224 is basically a cut down version. 192 cpi draft and 64 cpi letter quality with 3 built in fonts.

only £214.99 (mono)
or £244.99 (colour)

The New Citizen Swift 24e and 24x

(What Micro Best Buy)

The best budget 24 pin printer has just got better!

This must be the best 24 pin colour printer for less than £300. 8k buffer expandable to 40k, 216 cps draft, 72 cps LQ and multilingual too !

only £274.99 (80 col)
or £414.99 (136 col)

Citizen printer accessories : Mono ribbons only £4.99, Printer stands £24.99, auto sheet feeders £85.00, semi auto sheet feeders only £15.00

HEWLETT PACKARD PRINTERS

The HP Deskjet 500

The HP Deskjet 500 printer allows you to create laser jet quality without the cost. with 100 page auto sheet feeder, printer cable, 3 page /minute speed and

3 year UK warranty

only £339.99

The HP Deskjet 500C

The famous deskjet 500 is now available as a colour printer. With this printer you can get stunning colour output at laser quality

now only £599.99

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PHOENIX ROM SHARER

Because some older software will not run on the new 2.04 operating system Phoenix have designed a high quality ROM sharer. Recognised as being the best on the market, this ROM sharer features a flexible ribbon connection so that it can be positioned anywhere within your A500 Plus. **Keyboard switchable sharer now available!**

Don't be fooled by cheap low quality alternatives to Phoenix, treat your Amiga to the best!!

now only £19.99
or £29.99 for keyboard switchable version

Kickstart 1.3 only £29.99 or Kickstart 2.04 only £42.99

All Phoenix products come complete with a full 2 year replacement warranty

DISK DRIVES

New Roclite 3.5"

The new super slim Roclite has recently received the best review for disk drives in Amiga Format

only £59.99

Cumana 3.5"

1 meg external drive. The best name in disc drives now at a super low price. Still the most reliable.

only £57.99

SUPRA MODEMS

Supra 2400

Get on line with this incredible value fast modem from Supra with auto dial and auto receive. 2400 baud Hayes compatible, V22 BIS. Includes free modem cable and comms software!!

only £79.99

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Even faster than the standard 2400 modem from Supra with auto dial and auto receive. 9600 baud Hayes compatible. V42 BIS and auto adjusting facility to maximise transmission speeds. Includes free modem cable and comms software!!

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EMULATORS

The New GVP PC-28616MHz emulator module

plugs into an internal mini slot on the GVP Series II HD8 + or GVP A530 hard disc drives

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VORTEC AT Once Plus

emulator turns your Amiga into an IBM AT compatible The AT-Once Plus can be fitted to either the AMIGA 1500/2000 or the A500. **now with 16 Mhz clock speed!**

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KCS Power board

Regarded as one of the best emulators on the market, this emulator fits easily into the trap door and also acts as a RAM upgrade. Highly recommended.

only £184.99

Add £15.00 for MS-DOS 4.01

A500 Plus compatible

KCS Amiga 1500/2000 adaptor

only £59.99

PUBLIC DOMAIN PDSCENE

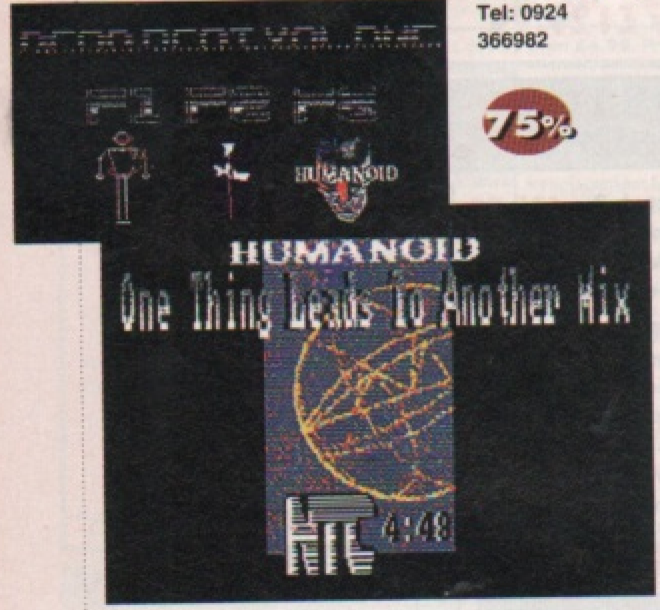
Steve Keen takes another exhaustive look at the latest PD releases and sorts the wheat from the chaff. If it isn't reviewed here, then it's not worth buying...

DEAD BEAT VOLUME 1

music demo

Deadbeat starts with a very funky laid-back track which then slips into a techno style with the aid of sampled speech – don"t they all these days? There are three tracks on the disk in the same vain as the intro music. They range from the rave mix 'Rocket Calculator' to the seriously computer-influenced 'Humanoid'. I must admit that this type of music doesn't appeal to me. There's more than 15 minutes of this sort of malarkey on offer, and if you like this type of music, then it's probably worth a listen.

Disk no: 1789 Available from: 17 Bit 1st Floor Offices, 2/8 Market Street, Wakefield, WF1 1DH Price: £1.50 (including P&P) Tel: 0924 366982



75%

EVOLUTION

demo

If you want to see excellent examples of vector graphic rotation, scrolling, static artwork and music all rolled into one, then you'll have to check out Angel's *Evolution*. Straight off the starting blocks, the demo begins with an animated picture of the demo crew's ninja logo and a scrolling starfield. As it unfolds, the demo reveals ever more wild examples of mixing and psychedelic creations that swirl and envelope the boundaries of the screen. Well worth a look at how a demo should be done.

Disk no: 1773 Available from: 17 Bit 1st Floor Offices, 2/8 Market Street, Wakefield, WF1 1DH Price: £1.50 (including P&P) Tel: 0924 366982

81%



GALAGA '92

arcade game

Programmed by Cool-G's Geert Coelmont and Romain Voes, this is a remake of the vertically scrolling arcade classic. *Galaga '92* includes nearly 300 different animation frames and incorporates 16-colours, but still has enough room for more traditional stunts, such as end-of-level guardians. The game itself is challenging to say the least. Most aliens take two or more shots to kill and swirl around the screen in random patterns. Some dart from left to right and then curl above your ship whilst other droids shoot out horizontally from the sides towards you. Initially, the going is very tough, but collecting bonus coins increases your power and inevitably your attention span.



Disk no: G117 Available from: Ground Zero, 4 Chandos Road, Redland, Bristol, BS6 6TE Tel: 0272 732978

80%

WHAT IS • PUBLIC DOMAIN?

Welcome to the Public Domain where there's a wealth of free software available for your Amiga – often as good as, if not better than, a lot of full-price commercial programs. For the price of a disk and a little money to cover such things as postage and packing, you can take your pick from a stack of great games, utilities, demos, animations and applications.

The origins of Public Domain go back to the early days of computing when groups of enthusiasts would get together and create original programs of their own. These they would distribute freely between friends to garner recognition for their coding skills. Nowadays, the PD scene has grown into a thriving industry with countless PD libraries serving an ever-growing number of enthusiasts. Standards are rising all the time. PD Scene is here to make your purchasing decisions that much easier as we individually rate all the best new releases as well as provide details of the full cost of each disk (including postage and packing) and the address of where to send your cheques/postal orders. Don't just sit there, start writing those cheques now!

2000AD SLIDESHOW

demo



This isn't a collection of the best artwork to appear in the famous comic. The two disks actually contain part one of a 'Tharg's Future Shock' called 'Alec Trench Zombie'. The comic strip has been ripped apart and reassembled in black and white digitised pictures. All the text has been retyped to make it easy to read and, although picture quality is initially poor, some stunning collages have been produced. The accompanying graveyard music suits the story well, but the end of the strip is missing! I'd have much rather seen a Judge Dredd or Rogue Trooper strip, so hopefully this won't be the last venture into Fleetway's back catalogue.

Disk no: 2000 AD Slideshow Part 1 Available: S.W.D. PD, 17 Saltford, Allerdene Est, Low Fell, Gateshead, Tyne & Wear NE9 6BG



75%



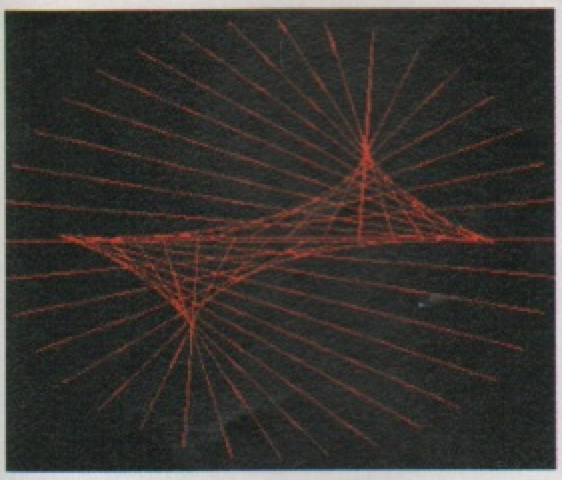
FACE THE REALITY

demo

Scream are a new demo team from Germany and this is their first demo called *Face The Reality* – and pretty good it is, too. Those who bear with the tedium of the tame multi-coloured scrolling text, are rewarded with a great song called 'The Definition Of Love'. It's accompanied by some simple, yet frantic graphics which look as if they've been produced with a Rolf Harris Stylophone. However, they jump and twist about in perfect time to the song and are very effective. This is followed by some very accomplished vector ball animations, including a hang glider and animals – all of which are then reflected in a watery effect. They've even given up space at the end of this disk to promote the use of condoms. More soon, please.

Disk no: 1798 + 1799 Available from: 17 Bit 1st Floor Offices, 2/8 Market Street, Wakefield, WF1 1DH Price: £1.50 per disk (including P&P) Tel: 0924 366982

79%





DRAGON TILES

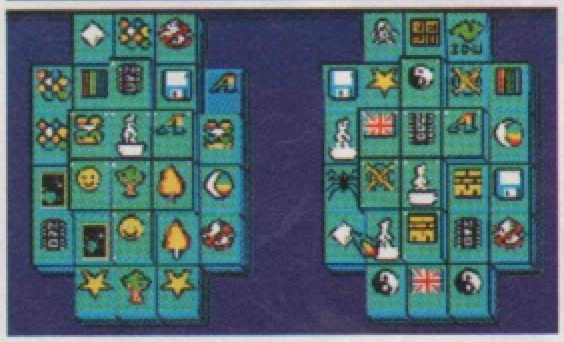
puzzle game

Dragon Tiles is a colourful adaptation of the popular matching game which has appeared on virtually every computer format. This version isn't as detailed as some, but uses a whole series of simple pictures which are quick and easy to see. This makes the whole process of pairing them off a great deal easier. The player must scan the board and find two matching tiles. There are fifteen different tiles, stacked at random in piles up to four high. The slabs can only be removed from the same side that they are positioned, or if they are at the same level (i.e. both three deep in the stack). It's all nicely presented, but I prefer the old Chinese character version to the teddy bears and Ghostbuster symbols used here. Also, this is the first version I've seen that doesn't include a help feature for when you get stuck, which is quite often.

Disk no: G95 Available from: Deltrax PD, 36 Bodelwyddan Avenue, Old Colwyn, Clwyd LL29 9NP Price: £1.25 (including 60p P&P per order) Tel: 0492 515981

78%





animation of THE MONTH





A SMALL STATION AT KHERN

animation

Warning! This is not an original animation, but another miniaturisation using the Show Animation package. The original full screen format needed over 2Mb to run, but thanks to Nightbreed's Man Machine, we can all enjoy it on our standard machines. The highly detailed work of Jim Robinson (not of Neighbours fame) is focused upon a futuristic space station. The screen is only 2x3"s, but the quality of the animation is phenomenal as the camera scrolls over a 3D landing strip and watches craft as they take off, fly past and land. Inspired stuff that just has to be seen.

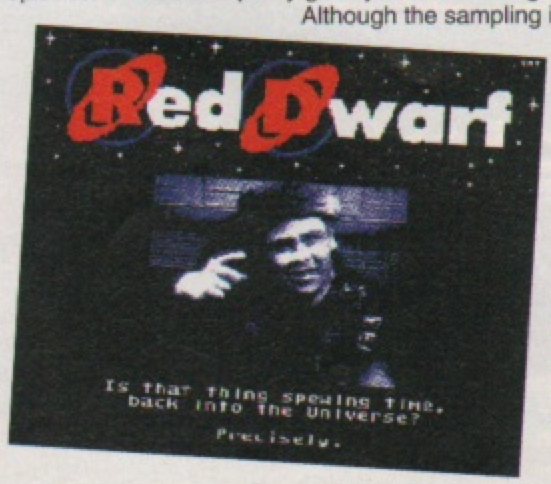
Disk no: H690 Available from: NBS 1 Chain Lane, Newport, I.O.W PO33 2QQ Price: £1.75 (including P&P) Tel: 0983 529594

90%

RED DWARF

demo It was only a question of time, thankfully, before someone put together a demo of cult TV comedy, Red Dwarf. The two disks recreate one of the shows smaller sketches with the aid of digitised still pictures and actual sampled speech taken from the episode. This does a pretty good job of recreating the sketch.





Although the sampling is very clear and the black and white pictures reasonably well lifted from the video, some animation wouldn't have gone amiss. The choice of sketch is a bit of a mystery, too, as there are much funnier clips from the show which could have been used. However, any Red Dwarf demo is a great demo and should certainly be added to your collection. It's guaranteed to impress the hell out of most people.

Disk no: Red Dwarf A&B Available from: Diskovery, 108 The Avenue, Clayton, Bradford, BO14 6SJ Price: £1.25 each (including P&P) Tel: 0274 880066

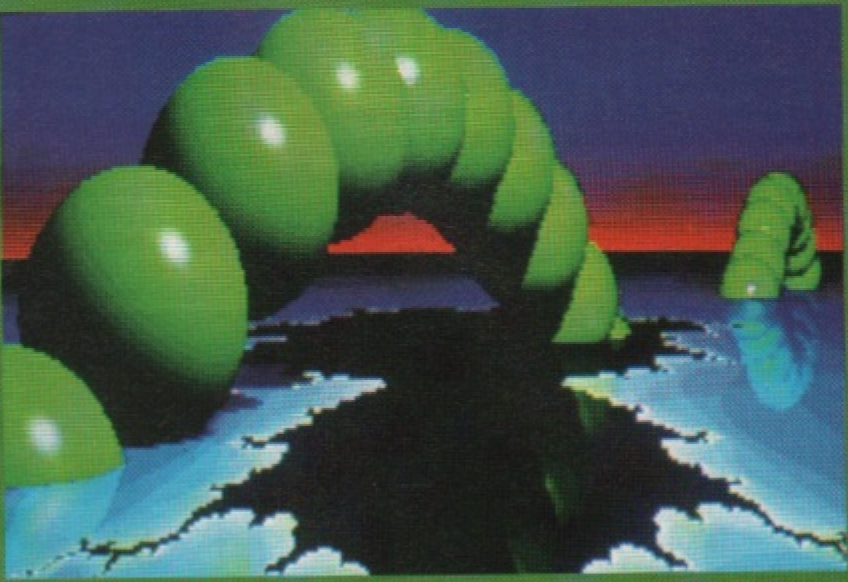
88%

PD SOFT'S WIN YOUR OW

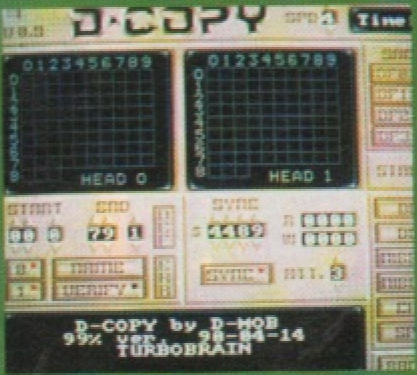
1,000 DISKS UP FOR GRABS!

PART 2

If you bought last month's CU AMIGA, you'll already be halfway towards winning a mountain of free software. Last issue we printed two easy-to-answer questions concerning PD software and an entry coupon. Providing you've kept your answers and the coupon safe, you'll now find another two taxing questions and a second coupon on the facing page. Write all four answers down on a scrap of paper, clip out both coupons, and send the whole shebang to: WIN AN INSTANT PD LIBRARY, CU AMIGA, EMAP IMAGES, 30-32 FARRINGDON LANE, LONDON, EC1R 3AU. Closing date for enteries: 30th August, 1992. Competition open to foreign readers.





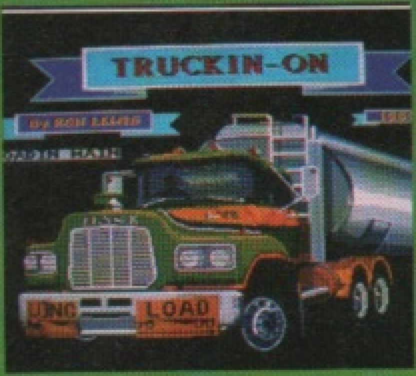








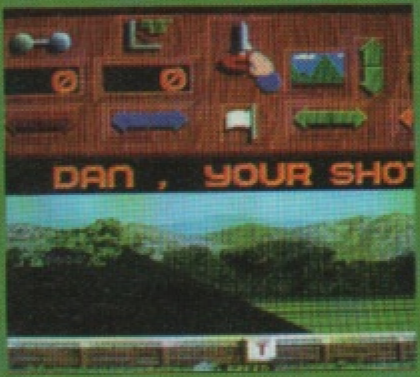














VN PD LIBRARY





WINNER TAKES ALL

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One of the largest PD Houses in the UK, PD Soft offer an unrivalled service which covers the entire spectrum of Public Domain, including all the latest utilities, games, megademos, Fred Fish disks, Schwartz animations, *AMOS* collection, as well as an extensive collection of budget-priced games. For further information, write to PD Soft at: 1 Bryant Avenue, Southend-on-Sea, Essex, SS1 2YD (enclosing an SAE) or seek out their ad in this issue of CU AMIGA.

RULES

1. Competition not open to EMAP or PD SOFT employees.
2. Editor's decision is final and no correspondence will be entered into.
3. If the prize offered is not available, we reserve the right to substitute a prize of similar worth.
4. This is a two-part competition and one coupon from both the MAY and JUNE issue of CU Amiga are necessary to enter.

QUESTIONS

Here are the last two multiple choice questions. Follow the instructions at the bottom of the page once you've answered them.

3. Tobias Richter and his Agatron label have built up a tremendous cult following for animations based on a popular sixties TV show. Name that show.

A. Star Trek
B. Lost In Space
C. Voyage to the Bottom of the Sea

4. Which of the following games is NOT PD?

A. Zeus
B. Plotting
C. Tanks

You should now have four answers as well as two coupons (no photocopies please!). Seal everything inside an envelope and send it to: WIN AN INSTANT PD LIBRARY, CU AMIGA, EMAP IMAGES, 30-32 FARRINGDON LANE, LONDON, EC1R 3AU. PD Soft reserve the right to enter your name and address on a database and send regular updates of PD-related offers and details of their catalogue.

CU AMIGA/PD SOFT

COUPON NUMBER TWO

Please cut out this coupon and send it with last month's coupon to the competition address printed above.

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Amiga Public Domain

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-1775 PACMAN COPIER. Play Pacman whilst copying a disk.
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+1926 RSI DEMO MAKER HELP & OBJECT.
-1956 PERSONAL ADDRESS BOOK.
+1991 ESSENTIAL UTILITIES III. Totally brilliant collection
+1999 AMIGA FOX DTP. Excellent Desk Top Publishing Title.
+2000 3z DATABASE. Powerful and easy to use Data base.
-2001 PC EM. Great PC emulator software.
-2012 VECTOR BALLS EDITOR FOR RSI. Create your own objects.
-2014 RSI DEMO MAKER DELUXE. New dots included.
+2037 ASSASINS MEGA BOOT. Huge collection of Boot Blockers.
+2046 DIGITAL ADDRESS BOOK. Very useful title.
+2050 WINDOWS BENCH V1.0. New replacement workbench.
-2054 LABEL BASE V3.0. Neat label printer.
+2056 LAND BUILDER V3.2. Create swift looking scenery.
-2057 IMPLODER V4.00 ETC. Fantastic file cruncher.
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+2088 THE ESSENTIAL POWER-PACKER. All relevant PP files.
+2096 PERSONAL ORGANIZER. Great Filofax utility.
+2138 CLERK. Home Accounts.
+2147 UNLOCK AMOS. Will unlock AMOS Procedures.
+2148 MR BACK-UP V5.02A. Backs up your Hard disk in mins.
+2150 TAPE COVER. Create snazzy looking tape inlays.
+2152 DATA EASY 1.3. Easy to use Data base. Great util.
+2153 PIC BASE. Store your picture collection on this great util.
+2154 LCD CALC. Full feature calculator.
+2157 FREECOPY V1.4. Removes the protection from games.
-2158 PROFESSIONAL D-COPY 3. Mega Powerful Disk copier.
+2171 TEXT ENGINE 3. Probably the best Word Processor.
+2175 UNI COPY. Great disk back up util.
+2176 AMIGA PLUS UTILS. Utilities specially for the A500+.
-2246 INSANITY TOOLS. Superb selection of utilities.
+2281 PRINTER UTILS. Useful stuff.
+2306 MED V3.2. Latest version, Brill sequencer.
-2312 HARDWARE COPIER. Disk duplicator that requires dongle.
+2313 AMIBASE PROFESSIONAL. Powerful easy to use Database.
+2315 ASSASSINS DISK COPIER. Large collection of copiers.
+2317 DIRWORK V1.31. Terrific replacement to CLI, good for beginners.
+2318 DRIVE OPTIMISER V1.0. Makes disk load faster.
+2319 THE SUPER KILLERS. Includes BOOTX V4.4
+2320 VIDEO DAT V1.2. Store your video collection on disk.
+2327 PRO CALC V1.0. Professional calculator.
+2329 FONT FARM. Contains loads of fonts for Dpaint.
+2324 FLASH COPY V0.9. Neat looking disk copier.
+2356 AUDIO ANIMATION STUDIO.
+2357 DISK REPAIRS INC FIX DISK1,2 BRILL
-2358 PRO TRACKER V1.1B Well brilliant music sequencer.
+2359 HARD DRIVE UTILS. Back up utils etc
+2360 DYNAMITE FONTS 2. Good selection of fonts.
+2368 DESKSID V2.05. New version of SID
+2400 ANTI VIRUS V4.2. Includes VIRUS CHECKER V6.01

GAMES

+1520 SHAPES. Fit that in there and now.
+1529 ENSIGNA MAYHEM. Lunar lander!
+1538 TANX GAME. Bloody brilliant.
-1642 DOWN HILL CHALLENGE. Skiing fun.
+1643 GALACTIC FOOD FIGHT. Oh my god.
+1644 THE SIMPSONS. Take Bart on a journey.
+1647 RETALIATOR + PACMAN. A classic.
+1648 AMIGOIDS. Asteroids at it's best.
-1709 NIBBY NIBBLE & MISSILE COMMAND
+1760 POM POM. Great Bosconian Head Clone.
+1771 SYSTEM 4. Superb Orbiter Clone.
+1774 ATIC ATAC. Amiga version of a classic.
+1777 MENTAL IMAGE GAMES. Great.
-1778 BATTLE PONG. 2 Player Action.
-1780 BATTLE FORCE. Strategic simulator.
-1856 BUGGY COMMAND. Superb Atari Coin Op.
+1919 D-TRIS. Excellent Tetris game for 2 players.
-1981 JUMPY. Neat platform game with cute GFX.
-1993 QUICK & SILVA. Amazing quality platform game.
+1994 SEA-LANCE. Excellent Submarine sim.
+1997 MISSION X (RAID 2). Brilliant Shoot'em up.
+1998 ARCADE CLASSICS. Inc Space Invaders.
+2002 LLAMATRON. Weird Jeff Minter game.
+2005 GAME CHEATS & POKES. Loads of em.
+2030 NU THE SHOOT'EM'UP. Amazing!!!
-2031 LAZER ZONE. 2 Player shoot'em up.
-2032 GROTHER. Excellent but weird game.
-2042 DESTINATION MOONBASE. Lunar Lander.
+2055 CARD GAMES. Large collection of em.
+2097 TRIPLE YACHTZ. Top mover.
+2073 SOLITAIRE. Strategy.
+2047 IMPERIUM. Role play game.
-2080 SUPER SKODA CHALLENGE.
+2081 F-14 TOMCAT. Great shoot'em up fun.
+2083 BATTLE CARS. Neat Battle game.
+2089 F.X.I. Excellent Tron clone.
+2091 AMAZING GAMES 1. Great Collection
+2092 AMAZING GAMES 2. Wicked
+2101 GO LOOLEY. Neat Gobbler Shoot'em up.
-2102 EXCALABUR. Excellent Shoot'em up.
+2161 GAMES GALORE 8. Brilliant selection.
+2162 GAMES GALORE 9. Latest & Greatest
+2164 WARFARE SIM.
+2165 DOODY. Excellent Platform game.
+2166 CRIBBAGE. Card game.
+2172 CRAZY SUE. Totally brilliant Platform game.
+2240 SKY FLYER. Latest & Greatest Shoot'em up.
+2321 GALAGA 92. Fantastic Shoot'em up
+2322 GAMES GALORE 10. Latest Compilation
-2328 REVENGE OF THE MUTANT CAMELS
+2354 NUMPTY AND THE ALIEN INVADERS
-2355 JETMAN.A Classic
+2362 X-FIRE Addictive stuff
+2363 BLACK BOX GAME
+2365 ALIENS SHOOT'EM UP
+2366 SMASH TELLY GAME. PD version of Coin Op

DEMO'S

-1509 COMA DEMO COMP. Neat music.
+1510 SICKNESS SIMULATOR. Sick or what.
-1521 THE SIMPSONS SLIDES. Great Pix.
+1535 HEAVY DEATH DEMO. Superb.
+1571 SURFIN NICARAGUA III. Wicked music.
+1622 PLASMUTEX Totally amazing.
-1667 AARON GETS NUKED. Sick animation.
+1670 NECROPOLIS MEGA DEMO.
+1671 DREAM DEALERS MEGA DEMO II.
+1682 TEXAS CHAINSAW MASICARE.
+1712 SINKING DEMAND
-1714 SPASMOLYTIC. Amazing stuff.
+1720 PHENOMENA ENIGMA.
-1750 SILENTS 'ICE'. Not to be missed.
-1763 ANARCHY 'INSPIRATION IS NONE'.
+1920 ANDROMODA-DECAYING PARADISE.
-1937 DIGITAL INNOVATIONS
-1962-8 PINK FLOYD THE WALL. 6 disks.
-2024 CRYSTAL SYMPHONIES. The best.
+2025 PIXELED PLEASURES
+2026 ABSENCE VIOLATION
+2029 MARS FLIGHT 1 MEG.
+2047 RAPSODY IN BLUE.
+2064 MAGICIAN 2. Great raytraced anim.
-2222 SILENTS "FRANCE"
+2239 QUASAR "242" MUSIC DEMO.
-2269 KEFRENS GUARDIAN
-2282 QUARTZ MEGA DEMO
+2285 TERMINATOR 23 MEGADEMO
+2286-9 AT THE MOVIES 2. Funny Swatz
+2290-1 HARD WIRE. Totally brilliant
-2295-9 ALCATRAZ ODYSSEY. Over 40 mins.
2307 SHUTTLE COCK ANIM
+2308 MRE POTATO HEAD2
+2309 TAKE 2 DEMO. Funny stuff
-2364 MAGIC 12 MAD DESISION. Great stuff
+2376 AMY Vs WALKER 2. 3MEG
+2378 ROCKING ROBOT ANIM. Excellant
-2380 METAL DISASTER SPLASH. Amazing
-2381 CULT, LEATHOL FORMULA DEMO
-2385 INNER MADNESS DEMO
+2389 SKUNKS + HUNKS. Brill Swatz anim
2391 RAZOR. Top quality demo

LATEST

+2281 ASSASSINS PRINTER UTILS. Brill
-2300 RSI DEMO MAKER V2.0.
+2154 LCD CALC. Powerful calculator.
+2155 LABLER V3.0.Excellent label maker
+2157 FREE COPYV1.4. Removes protection
-2158 PROFESSIONAL D-COPY 3. Powerfull
+2165 DOODY 2. The best!!!
+2171 TEXT ENGINE 3. The greatest!!!!!
-2172 CRAZY SUE. One of the best PD games
+2176 AMIGA PLUS UTILS. Utils just for the plus
+2240 SKY FLYER. Brilliant shoot'em up
+2243 VOGUE UTILITIES. Good collection
-2245 RSI VECTOR EDITOR. Usefull
+2250 AIR MANIA. Excellent ADDWARE game
-2290-1 HARDWARE. Totally amazing stuff
-2295-9 ALCATRAZ "ODDYSEY" £5.00
+2303 KIDS PAINT. Brill paint package
-2305 RADBENCH 1.4. recoverable RAM disk
+2306 MED V3.2. Siuperb sequencer
-2312 HARDWARE COPIER. Requires dongle
+2313 AMBASE PROFESSIONAL 11. Great
+2315 ASSASSINS DISK COPIER. 20 or so
+2317 DIRWORK V1.31. Great CLI replacement
+2318 DRIVE OPTIMISER V1.0. Speed up disks
+2319 THE SUPER KILLERS. Inc BOOTX 4.4
+2320 VIDEO DAT V1.2. Superb video cataoger
+2321 GALAGA 92. Amazing PD Shoot'em up
+2321 GAMES GALORE 10. The latest comp
+2323 GATOR GRAPHIC GALLERY. Graphic Tutor
+2327 PRO CALC V1.0. Powerfull calculator
-2328 REVENGE OF THE MUTANT CAMELS
+2329 FONT FARM. Huge collection of fonts
+2330 GAME TAMER V2.2. Loadsa cheats
+2331 ENVPRINT V1.2. Prints names & addresses
+2332 PR LABEL V1.1. Disk label maker
+2333 SUPER DUPER V2.1. Copies a disk in 36 sec
+2334 FLASH COPY V0.9. Excellent disk copier
+2335 A64 PACKAGE V2.0. Now plus Com
+2336 SUPER LOCK V1.0. Locks your keyboard
+2354 NUMPTY AND THE ALIEN INVADERS
-2355 JETMAN .A classic
+2356 AUDIO ANIMATIONS STUDIO Fab
+2357 DISK REPAIRS. Inc Fix Disk 1.2
+2359 HARD DRIVE UTILS. Backup utils etc.
+2361 TYPING TUTOR. Improve your typing
+2362 X-FIRE Excellant 2 player game
+2363 BLACK BOX GAME
+2365 ALIENS SHOOT'EM UP. Well wicked
+2366 SMASH TELLY GAME. PD game of Coin Op
+2368 DESKSID V2.05.
+2376 AMY VS WALKER 2 3MEG. New Swartz
-2380 METAL DISASTER SPLASH. Excellent demo
+2383-4 DIGITSL DISCO 2. Brilliant stuff
+2386 ALEIN BREED MUSIC MIX. Nout better
+2400 ANTI VIRUS V4.26. Just in. Inc VC6.01
+2401 SERENE 111. The latest & greatest
+2402 PROJECT X DEMO. Looks Amazing.
+2403 ESCAPE FROM THARKAN. Ignite the blaze
+2402 CARLY MUSIC MIX. New version of Charly

TOP MOVERS

+2157 FREE COPY V1.4 Removes Protection
-1873 SPECCY EMULATOR 1.2
-2158 PD COPY V3.0 Very easy to use
+1996 TEXT ENGINE 2.1
-1772 A64 PACKAGE
1991 ESSENTIAL UTILITIES 3
-2000 3z DATABASE Easy to use DBASE
-1993 QUICK & SILVA
+2302 DCOPYV2.0 The latest from DMOB
2172 CRAZY SUE
2306 MED V3.2
2290-1 HARD WIRED
2295-9 ALCATRAZ ODYSSEY

DEJA VU SOFTWARE

+LPD1 COLOURING BOOK Superb Ed Tile
+LPD2 ARC ANGELS MATHS Great
+LPD3 GALLEONS 1 MEG Follow up to Dogfight
+LPD4 THINGAMAJIG 1 MEG
+LPD5 JUNGLE BUNGLE 1 MEG Superb Ed file
+LPD6 PUKADU & SPRITES 600 Great puzzles
+LPD7 4 WAY LYNX 1 MEG Addictive
+LPD8 WORK & PLAY 1 MEG Super Ed Title
+LPD9 AMOS ASSEMBLER Requires AMOS
+LPD10 THE WORD FACTORY for ages 8 - 11
+LPD11 GO-GETTER 1 MEG
+LPD12 HYPNOTIC LANDS
+LPD13 JIGMANIA 1 MEG
+LPD14 PLAY IT SAFE Teaches Kids safety
+LPD15 ARC ANGEL'S SHAPES like fuzzy felt
+LPD16 REVERSI 11 Great fun
+LPD17 DOGFIGHT 11 up to 8 players
+LPD18 TOUCHSTONES
+LPD19 X - IT - 50
+LPD20 WORDY Great word processor
+LPD21 QUINGO
+LPD22 10/200 FONTS
+LPD23 ESP Mind game
+LPD24 SHINING WAY OF KUNG FU 5.50
+LPD25 THE MISSION Great fun
+LPD26 CYAD
+LPD27 FLOWER POWER
+LPD28 BUDDBASE Fantastic DBASE
+LPD29 BIG TOP FUN Great for kids
+LPD30 SHYMER
+LPD31 AMOS CLI PRINTER
+LPD32 HARD DRIVE MENU SYSTEM
+LPD33 ADVENTURE TOOL KIT Brilliant
+LPD34 INVOICE PRINTER Simple
+LPD35 T-TECDRAW great design pack
+LPD36 FRAGGEN 11
+LPD37 ROCKET MATHS for ages 7-11
+LPD38 AMOS ART
+LPD39 MAGIC FOREST 11 Platform game
+LPD40 SPRITE BANK EDITOR for AMOS
+LPD41 RESCUE Addictive game
+LPD42 X-STITCH For knitting patterns
+LPD43 LAZER ZONE upto 2 players
+LPD44 FORMULA ONE CHALLENGE Stratogy
+LPD45 MUSIC BOX Teaches music
+LPD46 MAGPIES CLIPART
+LPD47 DIRTY CASH FRUIT MACHINE Brill
+LPD48 SPARK'S STOCKINGS FILLERS
+LPD49 MARVIN THE MARTIAN
+LPD50 MAGPIES CLIPART 2
+LPD51 MAGICAL YOUNG ARTIST
+LPD52 LC24/200 FONTS
+LPD53 MAGPIES CLIPART 3
+LPD54 MAGPIES CLIPART 4
+LPD55 SPRITE X V1.32 Needs AMOS
+LPD56 C TEXT V1.32 AND FONTS AMOS
+LPD57 KIDDIES CLIPART 1
+LPD58 LOCKS, KEYS & ENEMIES
+LPD59 PREHISTORIC FUN PACK
+LPD60 TECHNO SNAIL Weird platform game
+LPD61 THE FINAL CHAPTER V2.0
+LPD62 REVOLUTION
+LPD63 WILBERTS WONDERLAND Addictive
+LPD64 RESCUE 2
+LPD65 POWER PLANNER Filofax
+LPD66 HOTEL MANAGER Board game
+LPD67 C.V.A.D 2 Mega Addictive
+LPD68 VIRUS BUSTER. Powerful killer.
+LPD69 MAGICAL MIX-UP.
+LPD70 PAINT BOX. Great kiddies art package.
+LPD71 BATTLE CARS. Fast 2 player racing.
+LPD72 MONSTER ISLAND. Simple role play.
+LPD73 AMOS DATABASE V3.01. Simple to use.
+LPD74 SOUR GRAPES. 3D isometric game.
+LPD75 VIDEO LAB. Great Video titling package.
+LPD76 T-TECMAZE. Superb puzzle game.
+LPD77 POWERBASE V2.1. Professional DBASE.
+LPD78 SPECTRA. Logic puzzle game.
+LPD79 MUSIC ENGINE. For use with AMOS, will play Sound-tracker tunes without converting them!!
+LPD80 ICON BANK EDITOR. For use with AMOS.
+LPD81 POOLS PRO. Bill Pools Predictor.

Professional PD

+PRO001 TEXT ENGINE V3.0
+PRO002 ZX-SPECTRUM EMULATOR V1.2
+PRO003 AMIGA FOX DTP V1.10
+PRO004 MED V3.2
+PRO005 LABEL BASE V3.0
+PRO006 LAND BUILDER V3.2
+PRO007 FREE COPY V1.4
+PRO008 DATA EASY V1.3
+PRO009 IMPLODER V4.0
-PRO010 PROFESSIONAL D-COPY V3.0
+PRO011 COMPUTER DIAGNOSTICS V9.1
+PRO012 DIRECTORY WORK V1.31
+PRO013 DRIVE OPTIMISER V1.0
+PRO014 D-COPY V2.0
+PRO015 UNI COPY V1.0
+PRO016 NCOMM V1.921

POWER COLLECTION

+VPP01 FOOTBALL MANAGER What a classic
VPP02 HOTSHOT 2 Player fun
-VPP03 KARTING GRAND PRIX Racing fun
-VPP04 ARTIFICIAL DREAMS
-VPP05 THAI BOXING Beat up the bad dudes
+VPP06 LAS VAGAS Great fruit machine sim
-VPP07 SECONDS-OUT BOXING Smash
-VPP08 FROST BYTE Great Platform fun
-VPP09 MOUSE TRAP see above
+VPP10 PLUTOS fast vertical Shoot'em up
+VPP11 SPACE STATION
+VPP12 WAR ZONE Tank battles
+VPP13 PROTECTOR
+VPP14 FIRE BLASTER
+VPP15 FLIGHT PATH 737 Fight sim
+VPP16 QUANTOX
+VPP25 5th GEAR Great racing fun
+VPP26 BATTLE VALLEY Superb shoot'em up
-VPP27 ICE HOCKEY Super sports fun
+VPP28 JUMP JET
-VPP29 SLAVER
-VPP30 STEEL Control herby the robot
+VPP32 ARCHIPELAGOS Strategic 3D stuff
+VPP33 BAD COMPANY Space Harrier clone
-VPP34 EYE OF HORUS More Platform stuff
+VPP35 PROSECTOR
-VPP36 QUADRALIEN
+VPP37 STAR BLAZE Fast filled vectors
+VPP38 STAR GOOSE
+VPP39 STAR RAV. Mega Defender clone
+VPP40 CHICARGO 90 Street chase
-VPP41 DEMOLITION Break out clone
+VPP42 DOGS OF WAR Great Commando
-VPP43 FIGHTER MISSION. Great Shoot'em.
+VPP44 H.A.T.E 3D Zaxxon game
-VPP45 HIGHWAY PATROL Neat police chase
VPP46 PHANTASM
-VPP47 SUPERSKI Fast
VPP50 ARTURA
VPP51 BATTLE SHIPS
VPP52 BEYOND THE ICE PALACE
VPP54 DFLECTOR.
VPP58 IRON TRACKERS. Great racing fun.
VPP58 MAD SHOW
VPP59 MANHATTON DEALERS. Brill arcade fun.

MUSIC

+2220 BACH CLASSICAL MUSIC.
+2221 BAGPIPE MUSIC. Has to be heard.
+2223 TECHNO FRIGHT. Great rave.
-2225 DIGITAL DISCO. Brilliant stuff .
+2232-3 PLAY'N'RAVE MUSIC DEMO.
+2242 HARDCORE MUSIC
-2247-8 HIS MASTERS NOISE. Bloody brill.
-2260 TAITAN MUSIC. Good stuff .
-2265 NUMERIC MUSIC.
+2266 RAMJAM MUSIC.
-2267 TECHNO TRANCE. Rave on dude.
+2268 SONIC BOOM. Lovely.
-2270 LEMMING CURD. Weird.
+2278 SHADOW MUSIC. Great music.
+2283 TECHNO MUSIC 2 Rave on
+2337 S.A.S RIPS 1. Music modules
+2367 PRINCE ALPHABET ST MIX
+2369 BOMB THE BASS MEGA-BLAST REMI
+2383-4 DIGITAL DISCO 2. Bloody Brilliant
+2366 ALIEN BREED MUSIC MIX. The best
2387 FISHY BUSINESS. ????????
+2406 WET BEAVER MIX. PNR Demo 1 meg
+2407 MULTI NUTTER MIX Great music mix
+0999 LONDON BOYS MIX. Terrific music

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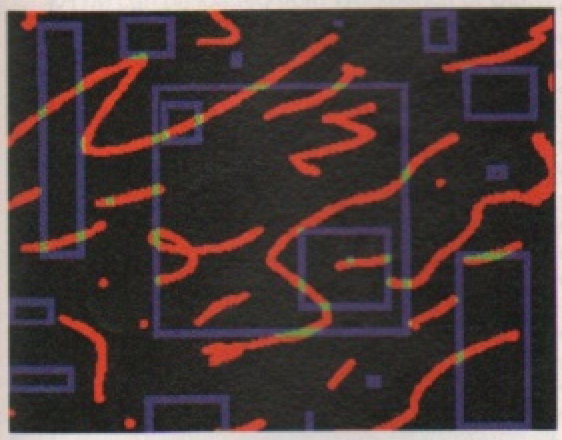
WILDFIRE

music demo

One of the best techno demos I've come across. Reminiscent of *Hypnautic Hammer 2*, the team behind the track includes such dignitaries as Doc Holiday, Twilight, Ghetto, Snuggles, and Zweeney. The song rattles along at an exhaustive pace using a mixture of cranky flickering graphics and twangy tunes to keep pulses racing. Certain rave scenario samples are easily recognisable such as 'What Time Is Love' by The KLF. Most definitely recommended, pop pickers.

Disk no: Wildfire Mega Demo Available from: Diskovery, 108 The Avenue, Clayton, Bradford, BO14 6SJ Price: £1.25 (including P&P) Tel: 0274 880066

88%





CLASSY ANIMATIONS 1992

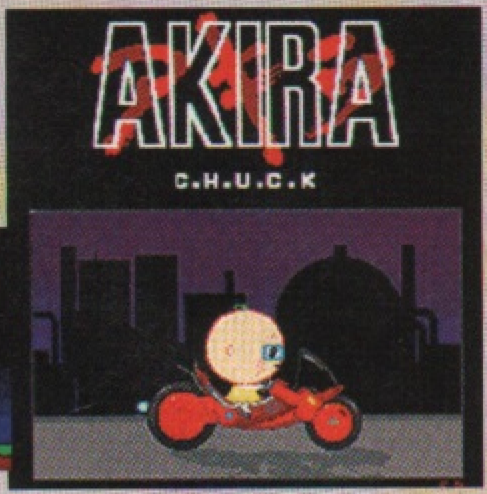
animation

Steve Packer has taken a small break from intro demos to put together a collection of six animations. Lasting no longer than a few seconds each, they still manage to illustrate Steve's talents in the field. Four of the six utilise various guises of the Chuck character, including a werewolf and a motorbike-riding Akira character. Amusing, but not really up to Mr Packer's usual awesome standards.

Disk no: H686 Available from: NBS 1 Chain Lane, Newport, I.O.W PO33 2QQ Price: £1.75 (including P&P) Tel: 0983 529594

80%





VIETNAM – IMAGES OF THE WAR

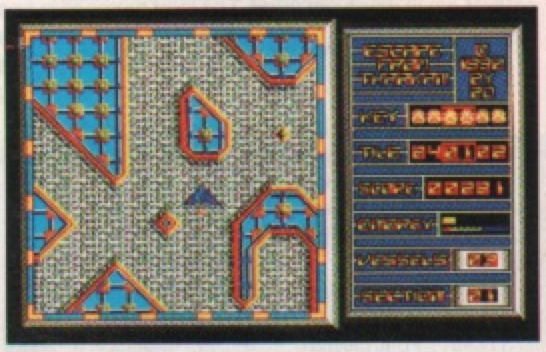
slide show

A two-disk collection chronicling some of the more publishable pictures from the Vietnam war. There are fourteen colour digitised pictures taken from the book of the same name. Nothing included is particularly dramatic and none are really well presented, and the result is a rather drab demo. I'd only recommend this if you're the type that doesn't get out much and has a lifetimes subscription to 'Soldier Of Fortune'.

Disk no: S558 + S559 Available from: NBS 1 Chain Lane, Newport, I.O.W PO33 2QQ Price: £1.75 each (including P&P) Tel: 0983 529594

56%





ESCAPE FROM THARKAN

arcade game

One of the few quality games around this month is by Reflex. Working in the same mould as *Breakout* the game uses a space theme and two paddles one above the other. If the ball passes behind the last paddle and hits the wall behind you, the width of your top bat decreases. Hiding behind some bricks are gun emplacements and these can only be destroyed by bouncing the ball off their backs. If the emplacements hit you, though, your ship's energy will be depleted until you eventually explode. The game is mouse-operated and pressing the right button transforms your paddles into a space craft that's sent into a maze of catacombs that must be safely negotiated. Games can be saved and reloaded at a later date, but the disk hasn't got any instructions, so trial and error is the only way to play.

Disk no: 2403 Available from: Virus Free PD, 23 Elborough st, Swindon, SN2 2LS Price: £3.00 for 1 2 to 5 disks £2.00 etc (including P&P) Tel: 0793 512075

79%

BEACH BABES!!

slide show



Okay men, simmer down! At the risk of sounding like a not-too-distant relative of those highly respected philosophers, Bill S. Preston Esq., and 'Ted' Theodore Logan, these two disks are crammed with the most Mondo bodacious beach babes since the last series of Baywatch. There are over fourteen lovely ladies rendered in pixel-perfect digitised colour from who knows where – but I wish I did! None of the pictures are of nudes, so there's no need for any of the Mary Whitehouse brigade to get out their sticks, just what you'd expect to see lining any stretch of a glistening sandy beach in Heaven! We had quite a lot of fun transferring them into *DPaint* and drawing moustaches on them, thus making them far less intimidating, eh lads! **Disk no: 1782A & B. Available from: 17 Bit, 1st Floor Offices, 2/8 Market Street, Wakefield, WF1 1DH. Price: £1.50 each (including P&P) Tel: 0924 529594**

88%



PD TOP TEN

A-Animation S-Sound U-Utility G-Game M-Miscellaneous

1. Microbes G
2. Lemmingoids G
3. RS Lemmins Anim A
4. Obliteration G
5. Colours M
6. Agatron Slideshow M
7. Crazy Sue G
8. Icon Maker U
9. Perter's Quest G
10. Quadrix G

Compiled by CU Amiga

17 BIT SOFTWARE QUALITY *Public domain*

*Please note, the * means disks are not PLUS compatiable, a lot of PD does work on a Plus but please take care to make sure it does before ordering. We stock all major PD so just give us a call if you do not see it listed.*

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THAT BIT BETTER THAN THE REST

17 BIT SOFTWARE Est. 1988

LATEST ADDITIONS

1879 Gelegnite Fonts (amazing fonts disk).
1878 Total War (mega game).
1877 Simon Space Maths (educational).
1876 ABCD-LSD MUSIC ON FOUR DISKS.
1875 Boot X 4.47 the latest version.
1874 Techno music by Cubik (score city).
1873 Powerbench 1.0 (good wb disk).
1872 Pogo (brill arcade game).
1871 Axis Unkown territory demo.
1870 Ball Lightning (game).
1869 Down Hill challenge (game).
1868 Tetrix (the best ever version of Tetris)
1867 Sid 2.
1866 A + B Star Trek slideshow (2 disks).
1865 Wiggle dis music disk.
1864 Dynamite fonts 1
1863 Rave tracks (hardcore music disks).
1862 Bug Blaster (very good game)
1861 Jack music 2 (remix).
1860 Cybordine Anim (1 meg).
1859 Altern 8, Evaporate remix.
1858 Boot block compilation disk.
1857 Icons Galore wb2 only (By G henderson).
1856 WB2 utilities (Gary Henderson).
1855 Font Farm.
1854 A + B Erasure (Breath of life) 2 disks.
1853 ABC as above but different mix (3 disks).
1852 Army of lovers (Bite the bullet).
1851* Tubilar Bells.
1850 Rummy (card game).
1849 Plus Issue 8 (+ owners utils and games).
1848 Radbench for + owners (ram res wb).
1847 Spellcheck 1.3 (excellent spell checker).
1846 China Shop (game).
1845 Lemmingoids (great game).
1844* Frustration (brilliant text adventure).
1843 Plus Issue 7 (more stuff for + owners).
1842 Plus Issue 6 (great utils and games).
1841 Bach concertos 5 + 6.
1840 Bach concertos 3 + 4.
1839 Bach concertos 1 + 2.
1838 Virus Killers (lots of em).
1837* Super Invaders (game).
1836 Jackie chan slideshow.
1835 Perm Checker 1.2 (Pools predictor).
1834 Wormhole (game).
1833 Growth (game).
1832 Fortran Compiler.
1831 Intro's Compilation.
1830 Rainbow slideshow (Hello Bungle).
1829 Animated Pointers.
1828 Forms really unlimited.
1827 ABCD Manic raves 2 on 4 disks.
1826 A+B Kefrens Megamix 1 (good music disk).
1825 Bass subliminal vision.
1824 Walt disney Clipart.
1823 Simpsons shoot em up.
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1821 Serene 3 (shoot em up).
1820 Serene 2 (shoot em up).
1819 Serene 1 (shoot em up).
1818 Astronomy Slideshow.
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1816 Bouncer remix (yer not coming in).
1815 Rave generator music disk.
1814 Mike Archers Basso Music (brill).
1813/200 Utils on one disk (megatastic).
1812 A+ Blues brothers remix (2 disks).
1811 Ed keys (keymap editor).
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1809 Alchemy mega demo.
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1807* Intro's compilation.
1806 Electronic Knights.
1805* Hawk earths sorrows (demo).
1804 Slideshow generator (superb).
1803 Tanks (very good game).
1802 Music mania (startrecker, soundtracker).
1801* Garloween the movie.
1800* Disk 1 of above.
1798+1799 Scream 2 disk mega demo.
1796 A+B A64 emulator v2.0.
1795 Image Utils (genloc stuff ETC).
1794 Amos Update 1.32.
1793 Transformer v3.3 (very popular).
1792 Opti comms 2 (the very best comms disk).
1791 Arsenal slideshow (come on you reds!).
1790 Disk menu v1.0.
1789 Dead beat vol 1.
1788 contact.
1784 Software Failure demo.
1782 A+ swim wear models (very nice).
1781 Car demo (very nice demo).
1780 Kefrens mega mix 2.
1779 Brian Badland comic artwork.
1777 Viking Saga (animation).
1775 Edword (Text editor).
1774 LSD adventure cheats.
1773* Angels mega demo.
1772 A+B trekkies mag on 2 disks.
1771 Samples volume 1.
1770 Icon nightmare (over 50 icons).
1769 Classic Utilitys.
1768 Plus Issue 4 (+ owners disk).
1767 Fractal Generator (very fast).
1766* Tornado slideshow (top ho charlie).
1765 Game tamer 2.3 by g henderson.
1764 Skoda challenge (race game).
1763 TV Graphics (gen loc stuff ETC).
1761 Video Applications.
1760 Video Applications.
1750 Protracker v2.0 (with docs).
1749 Microbes (superb game).
1747* Demolition Mission (good game).

FISH EXTRAVAGANZA

F601 Apipe
F602 Pit Lib
F603 Dynacad
F604 Midi Stuff
F606 Auto Graph
F607 Dos control
F617 Revenge (game)
F618 Voice CLI
F619 Amigazer
F620 Tracks Dos
F621 Icon Editor
F622 U-edit
F623 Make Icon
F625 Sys-Info 2.62
F626 Bowling league
F627 Free Paint
F628 Adventure
F629 Boulderdash
F501 Admenu
F502 Strategy game
F503 PCQ pascal
F506 Star Trek Triv
F509 MultiPlayer
F511 Connect 4
F512 Reversi
F513 DKB Trace
F514 GearCalc
F515 Cheque book
F516 Loon emulator
F519 Text Sort
F521 Landscape
F522 Mandlebrot
F526 Data easy
F527 Zoo
F530 Turbo Title
F531 Filesearch
F532 Boot pic
F533 Boot gen
F535 Biz Calc
F536 Chemesthetics
F537 Bootgames
F539 Disk drive test
F541 Mine clear
F542 Powersnap
F544 Lander
F548 Label Maker
F551 Tool manager
F582 Diplomacy

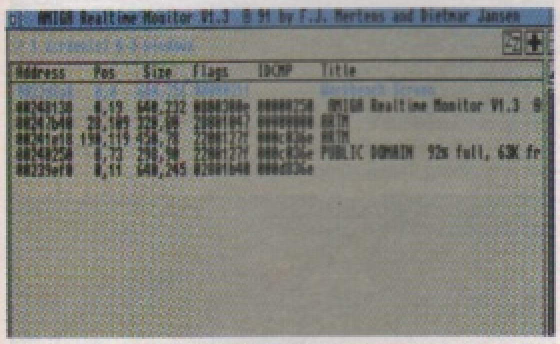
PUBLIC DOMAIN PD UTILITIES

AMIGA REAL TIME MONITOR (ARTM)

COMPUTER ANALYSER

ARTM is the data equivalent of Doctor Kildare and keeps an eye on the internal operations of the Amiga, reporting when anything is awry. Whenever you use the Amiga, assorted task assignments and library calls are running which are invisible to the user. However, should things go wrong, understanding the inner state of the computer can be a great help in identifying and rectifying the problem.

ARTM can be loaded from Workbench or CLI, and will display a system's screen from where the many functions can be accessed. In addition, at the bottom of the screen are a selection of gadgets, and clicking on one of these will generate a list of information which is displayed in the remainder of the screen.



ARTM can be used to reveal your Amiga's innermost secrets, and is ideal for changing the defaults within commercial software.

The program is ideal for C and machine code programmers as it will let them probe the innermost parts of the system. One example is the Tasks command which displays a list of all active tasks, complete with their memory address, priority, type, stacksize, state, code and signals. Furthermore, once the task list is displayed, their priorities can be altered to override commands which are embedded in commercial software. CLI and Workbench users will find something of interest, too. How about the Windows command, which displays all currently opened windows, and lets you close them? If that's not to your taste, try Memory: it'll display how the memory has been allocated within the machine, indicating whether it is Chip or Fast RAM.

ARTM is very easy to use, and can be iconised for ease of use when running other software. It's by no means an essential utility, but on the rare occasions when you'll need it, you'll be extremely glad you've got it. Because of this, it should be part of every Amiga user's library.

FACT BOX
DISK ID: 1600
PRICE: £1.50 (including P &P)
AVAILABLE FROM: 17 Bit, 1st Floor Offices, 2/8 Market St, Wakefield, West Yorkshire, WF1 1DH.
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82%

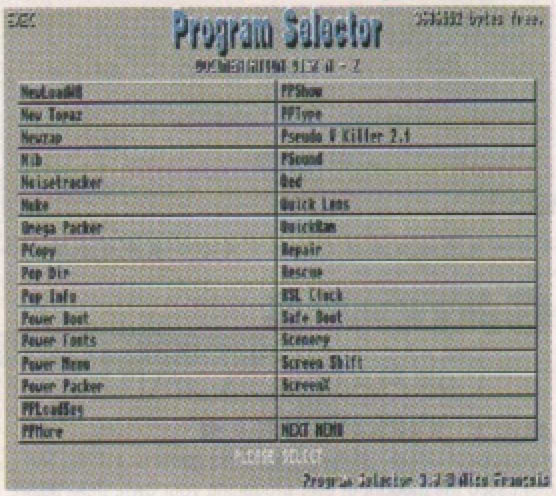
Mat Broomfield is here with his usual mind-expanding menagerie of useful utilities.

DOCS DISKS

UTILITY INSTRUCTIONS

Although most PD utilities are distributed with full, or at least partial instructions, nothing is more irritating than finding a great-sounding utility which you can't work out how to use. Roy Huntley obviously agrees, and he's compiled two disks jam-packed with nothing but utility documents. The documents can be selected via a user-friendly mouse-operated menu system, and clicking on any of these will load them using the *Much More* program.

The documents are alphabetically arranged, with disk one containing instructions for utilities A-N, whilst the other disk takes care of the remainder. There are roughly 75 doc files on each disk, covering mainstream programs, such as *Soundtracker*, and less common ones including *Nib* and *Scenery*. As an additional bonus, Roy will also supply any of the featured utilities free of charge if you send him a disk and an SAE. The documents range in length, but if you're looking for a particular set of instructions this is a safe bet.



If you have a PD utility without its instructions, you should be able to find them within the 150 gathered on this disk.

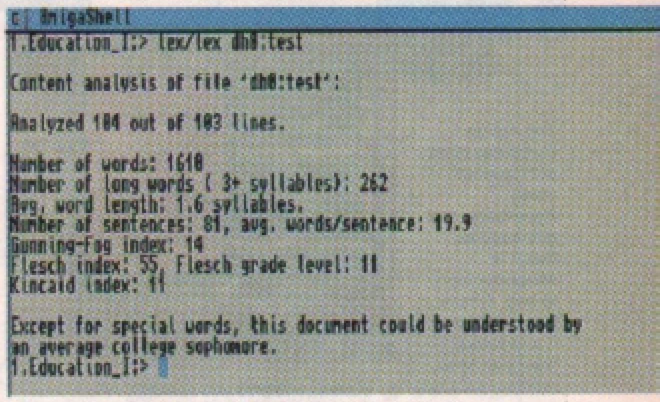
FACT BOX
DISK ID: T10 & T11
PRICE: Price: £1.40 per disk (Including P&P)
AVAILABLE FROM: Ground Zero, 4 Chandos Rd, Redland, Bristol, BS6 6PE.
TELEPHONE : 0272 732978
87%

LEX

TEXT ANALYSER

There can be many circumstances – particularly if you are writing, say, stories or revision notes – when it's important that a piece of text is appropriate for a particular age group. It's extremely difficult to assess the readability of a piece without actually giving it to a sample group and asking them to read it. Now, thanks to *Lex*, you can ensure that your writing is always suitable for its target readership.

Lex can be used with any standard ASCII text file, and is operated from CLI. Enter the name of the text file to be analysed and it'll generate three numbers representing different readability algorithms. It will also produce a word, long word and sentence count. The



If you need to know how easy it is to understand your writing standard, *Lex* will give you the answer.

algorithms are: The Gunning-Fog index, which tells you the level of schooling (in years) required to understand the document; the Kincaid Index, which acts in the same way as the former but uses another method for its results; and the Flesch Index, which is based on a scale of 1-100, and is inversely-proportional to the difficulty of the document. The lower the number, the harder the document.

By applying the three algorithms to each document, the results are even more accurate. Also on the disk is an excellent program called Study, which can be used as a study aid when facts have to be memorised. It's essentially a large database, with information divided into questions and answers. When in use, questions are presented on one side of an index card for you to answer. When you're satisfied with your reply, press F2 and the computer will reveal the answer. There's no scoring system or similar niceties, but Study helps reenforce facts by rote. I would imagine that it would be very useful for anyone hoping to learn a foreign language or pass a driving test. Study also comes with two sample databases: Scripture, which tests your Biblical knowledge; and Trivia, which can be turned into an entertaining game.

FACT BOX
DISK ID: Education 1
PRICE: £1.25 (Including P&P)
AVAILABLE FROM: Diskovery, 108 The Avenue, Clayton, Bradford, BD14 6SJ.
TELEPHONE : 0274 880066
76%

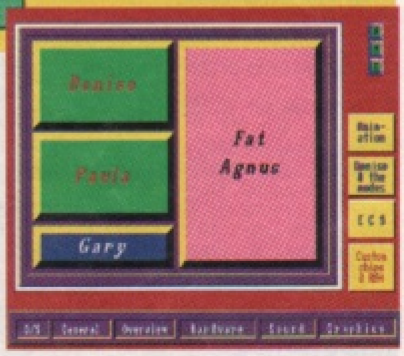
THE AMIGA GUIDE

HELP DISK

No matter how knowledgable you are, there's bound to be a time when you come across an Amiga question that you can't answer. Not to worry, perhaps *The Amiga Guide* can help...

This disk-based guide is to the Amiga, what the Hitch-Hiker's Guide is to galactic travellers: full of interesting, sometimes useful, maybe irrelevant





The Amiga Guide has been put together using *Hyperbook*, and this ensures that it is extremely easy-to-use. Simply browse through it and select what you need. Clicking on one of the buttons will give you access to more information or will return you to a more general topic.

bits of information on every topic under the sun. Written using the *Hyperbook* presentation package, the Guide is extremely user-friendly for the most part, although there are one or two little glitches that sometimes cause momentary confusion.

On loading, the user is greeted by a topic menu, with entries listed in red and black. Clicking on one of the black entries will load a single text file offering advice or information on the selected subject. The red entries indicate that the selected subject has many parts and clicking on one usually takes you to another menu or screen. For example, click on the word 'AmigaDOS' and you'll be taken to a screen containing a brief overview of the subject, and a sub-menu offering four further DOS-related topics.

The Amiga Guide gives broad coverage and information about specific programming languages, add-on hardware and viruses, and many other additional topics are freely available. Some of the information is a bit brief at times, but for the beginner, it's an ideal way to broaden your knowledge of the Amiga and much that relates to it.

FACT BOX

DISK ID: R14

PRICE: £3.85 (Including P&P)

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TEXT PLUS 3.0E

WORD PROCESSOR

One of the first utilities most Amiga owners buy is some sort of word processor or text editor. As well as the many full-price products, there are a number of PD offerings, too. *Text Plus* is certainly among the best, and offers features which rival – and even beat – the cheaper commercial packages.

Of course, the most important features of any utility are those that are used the most frequently. In the case of a word processor, those features include text styling, justification, cut and paste options, and printer user-friendliness. In these areas, *Text Plus* scores highly, having undergone many modifications since its 2.2e release. The Printer requester has been enhanced to provide options for colour printers, and can also support proportional spacing. The new print options are selected via a very friendly gadget-driven window.

The program provides full control over the layout of a document, ranging from the obvious (such as line length, indents, tabs, etc) to more advanced features including sub-/super-script and auto-hyphenation. A quick delve into any menu reveals just how comprehensive this program is. For example, the Extern menu contains a list of additional programs that can be loaded from within *Text Plus*. These include *Sid*, *Powerpacker* and *File Master*.

One feature that I particularly like is the Date option, which inserts the current date into a document at the cursor position. It's hardly essential, but it saves having to look at your watch to find out what day it is!

The program is Shareware, and Martin Steppler, its author, requests a very reasonable £8 registration fee if you intend to use it on a regular basis. To deter users from 'forgetting' to send the fee, Martin has implemented one of the most effective reminders I've seen. It's called the Nerve-wracking Requester, and appears with excruciating regularity. Although it doesn't stop you using the program, having to constantly click 'OK' to make it go away really gets on your wick after a while. However, the requester isn't present in versions sent to registered owners! If you're looking for a word processor, and are strapped for cash, this is definitely your best option.

FACT BOX

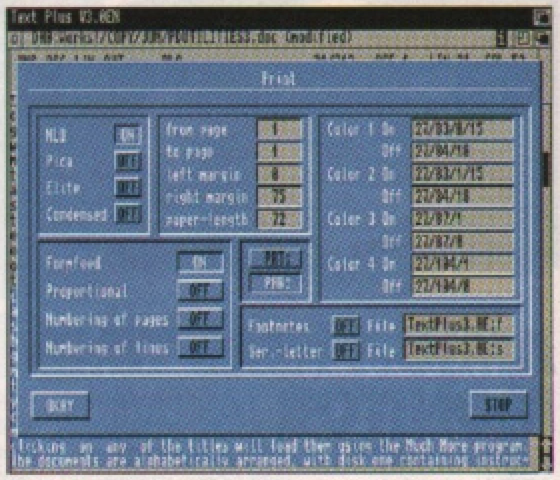
DISK ID: 1703

PRICE: £1.50 (including P&P)

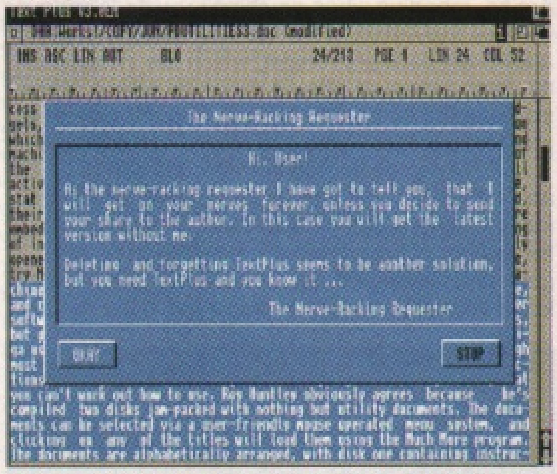
AVAILABLE FROM: 17 Bit, 1st Floor Offices, 2/8 Market St, Wakefield, West Yorkshire, WF1 1DH.

TELEPHONE : 0924 366982

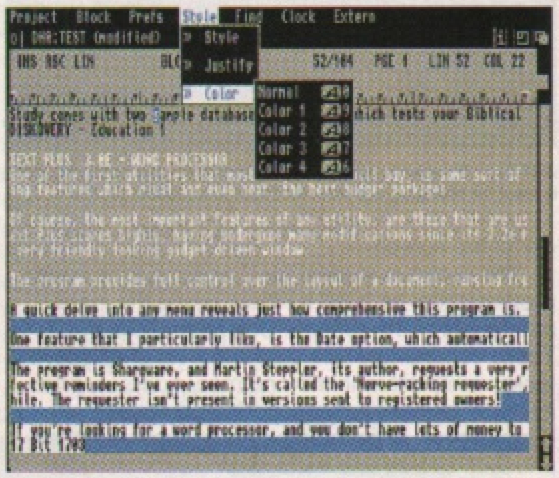
80%



The *Text Plus* requester has been greatly improved and now stands as a benchmark for other programs to live up to.



The Nerve-Wracking Requestor pops up frequently to shame the user into paying their Shareware contribution.

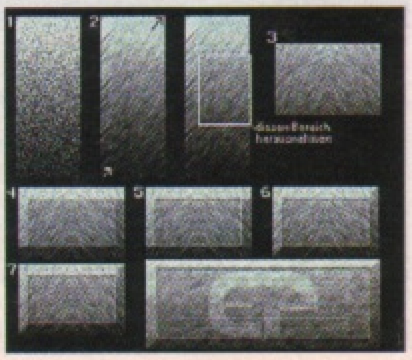


Highlighting text is made extremely easy thanks to *Text Plus*'s colour options. Just one of the dozens of functions which lift it above its plentiful competition.

GATOR'S GRAPHIC GALLERY

ART TUTORIALS

If you've ever looked at the graphics in a game or a demo and dismissed the thought of ever producing your own, think again. Gator (AKA Martin Baurman) is a graphic artist with three years Amiga experience, and he's put together a disk demonstrating all of his favourite arty techniques, complete with tutorial text and illustrative step-by-step graphics.



Although Logo design is a specialist subject, you may find use for *Gator*'s shading tips.

Throughout the tutorial, the top half of the screen is used to display graphics, whilst the bottom half contains descriptive text. Some of the tutorials are spread over a number of pages, combining assorted artistic techniques to create a single effect. The tutorial is 32-pages long, and it's accompanied by a funky tune. 99% of the tutorials describe methods of creating text and logos, but the colouring and shading techniques are useful for other things, too, more than justifying the disk's price. I can't imagine many artists who wouldn't appreciate this disk.

FACT BOX

DISK ID: Gator's Graphics

PRICE: £1.50 (including P&P).

AVAILABLE FROM: Mr Micro, 30 Townhead, Kirkentilioch, G66 1NL.

TELEPHONE : 041 777 6300

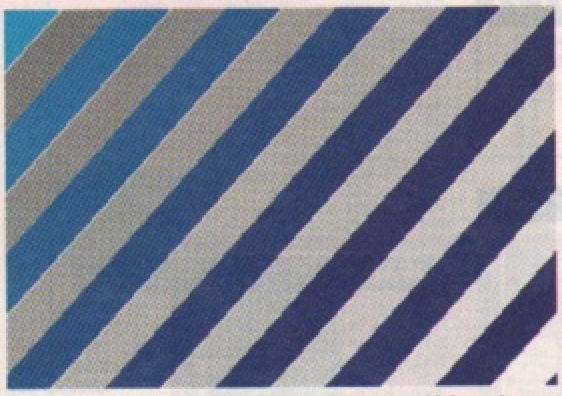
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TV GRAPHICS

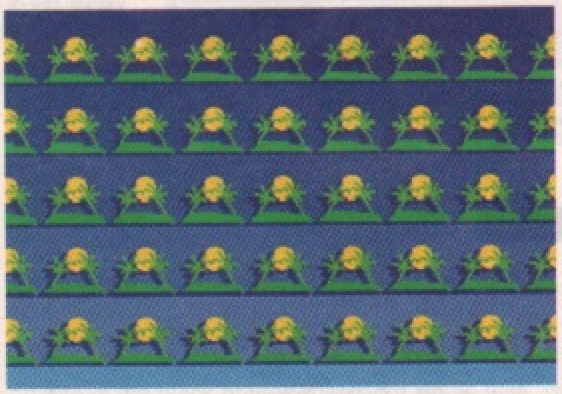
GENLOCK TOOL

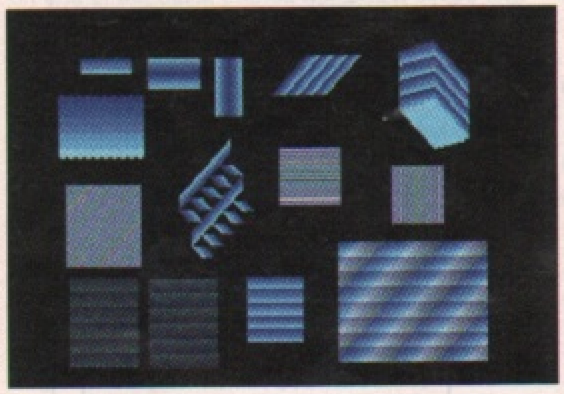
Although the Amiga is a great video titling tool, it takes valuable time to create the graphics needed for professional credits. *TV Graphics* simply provides a couple of handy pre-drawn IFF screens which can be used as backgrounds for your own productions.

Although the screens are all in low-resolution mode, there's no blockiness thanks to the skillful way they've been coloured. In fact, most of them feature some form of colour graduation usually from top to bottom or corner to corner. The screens aren't particularly elaborate, but they're supplied with a set of additional ornaments which can be used to add detail if required. Commercially available backgrounds can cost tens, even hundreds of pounds, so if you're in the market for some, try these first.



TV Graphics offers loads of background screens which can be used as a canvas for your video titling work. Each screen uses colour to an incredible effect, and they certainly make a welcome change from the usual pale blues and greens which adorn so many home-grown videos.





If you still feel the screens are too bland, they can be pepped up with some of the numerous ornaments provided.

FACT BOX

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75%

LANDSCAPE MAKERS

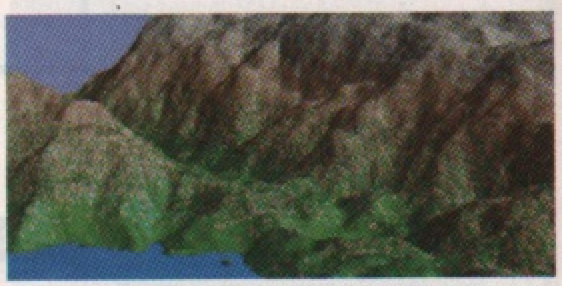
FRACTAL CREATION PACK

Fractal Landscape Creators are growing steadily more powerful, and the PD equivalents to the likes of *Vista Pro* are improving in leaps and bounds. This disk contains five of the best – *Genesis*, *Scenery*, *Landscape*, *Land Build* and *Cloud 9*. Although Genesis is probably the most powerful of the group, it's only a demo version with the Save option disabled, so we'll move on.

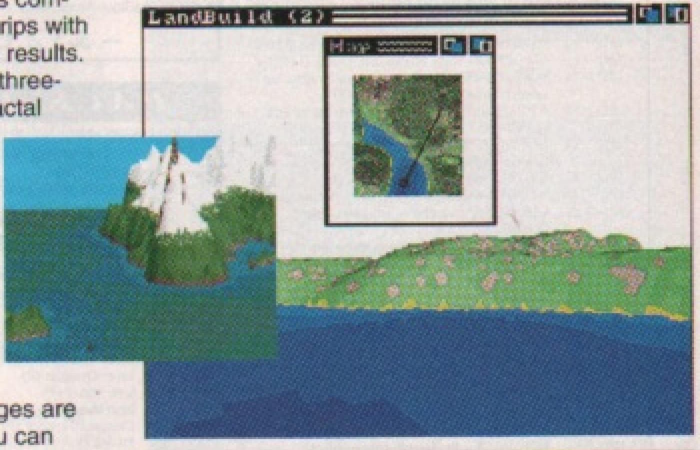
Scenery produces extremely distinctive landscapes, all of which have a recognisable mottling effect at the verges between low and highlands. Although this package has been out for a while, it still produces eminently usable scenes – however, it doesn't give a particularly high level of control, especially in the animation department. *Landscape* is unique, in that it's the only fractal landscape program to be written in *AMOS*. Although it is limited when compared to its commercial brethren, it's very easy to get to grips with and produces very attractive and unusual results. It also allows the user to generate two or three-dimensional landscapes based upon a fractal value (seed) which you specify.

Landbuild is the least sophisticated of the generators on the disk, but to compensate for this, it's also the fastest and easiest to use. Once you've entered a seed number, it calculates control points, lighting and the like, and draws a 2D preview map upon which you can position the view points. Even in its highest resolution, *Landbuild* doesn't look very convincing, but the images are useful as 'rough sketches' from which you can develop your own hand-drawn scenes.

The final fractal program is called *Cloud 9*, and creates abstract cloud patterns. With re-colouring, these clouds can be made to look like sonar images of the sea, or thermographic aerial shots of the ground. I'm not sure about their practical applications, but *Cloud 9* is certainly nice to look at. Overall, a worthwhile disk full of interesting programs.



It's interesting to compare the output of these fractal landscapes to their 'professional' counterparts. For such a cheap program it's a perfect entry to a fascinating genre.



FACT BOX

DISK ID: **1697**

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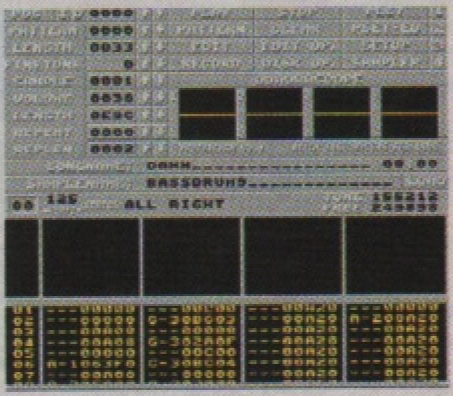
73%

PROTRACKER 2.0

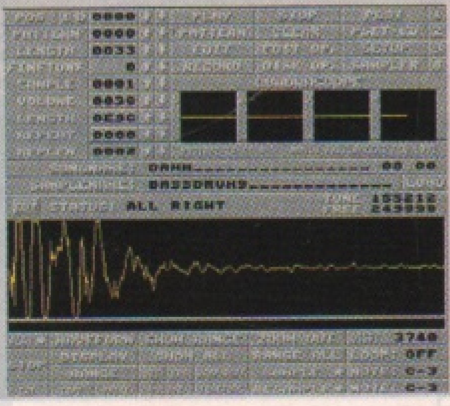
MUSIC PACKAGE

When we gave away *Protracker 1.0* on our coverdisk last year, it apparently went down a storm.. At that time, the *2.0* version of the package was released commercially and cost about twenty pounds. It has now been released into the Public Domain, which is great news for all you *'Tracker* fans out there! The new *Protracker* is compatible with all Amigas, and all known bugs from the original have been corrected, and a number of enhancements added. The package allows the creation of tunes by linking together patterns, each of which consists of up to four 64-line blocks of notes. Notes are entered via the keyboard, which is configured to represent a two-octave piano keyboard. Once notes are entered, a number of effects (such as pitch slides, arpeggio, volume slides, etc) can be added.

One of the most useful new features in *Protracker 2.0*, is a full sampler compatible with any standard sampling hardware. It includes all of the basic options required to record and loop samples. Talking of loops, one of the problems with earlier versions, was that they couldn't handle looped samples over a certain size, but that has been fixed, allowing the usage of IFF or Raw samples of any size. *Soundtracker* purists will find nothing to complain about in this program. It simply takes a great idea, and develops it even further!



Protracker is one of the most popular *Sountracker* derivatives, and now it's even more powerful with the release of this *2.0* version. The most useful enhancement, though, is the sampler which includes all the features necessary for top quality recording.



FACT BOX

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x **V48 TV & VIDEO GRAPHICS (8)** Packed with background screens for your video productions, Different types of graphic styles. **Pool,** takes an IFF Picture & peels it down the screen, & Much More.
x **V86 VIDEO PRODUCTION (2)** Both disks are Packed with Video & Genlock utilities.
x **V109 PRINT STUDIO** Excellent for printing pictures or text. An excellent program for all printer owners.
x **V191 MASTER VIRUS KILLER** Virus Checker & Killer. With Excellent options. Includes search disk.
x **V193 THE EMULATORS** Covers Various (2) Formats which includes **CPM, IBM-PC & ST** Require 2 drives.
x **V194 M.R.BACKUP HD** An excellent Hard disk back up program. Backs up all or any part of the drive.
x **V195 GRAPHIC INTERCHANGE** Interchange graphics Between Atari St/PC Graphics to the Amiga.
x **V215 DISKMASTER v3.2** Copies files from one disk to another. **DISKSALV** Corrects & repairs.
x **V261 TEXTPLUS VERSION 3.0** This disk is not just an update but completely New Word processor.
x **V262 DUPLICATION & BACKUP:** Super Duper,Turbo copy, Sanity copy & PCopy. Four new copiers to backup your originals for save keeping.
x **V277 FORTRAN-77 v1.3c** Compiler, linker & run time support library. F470
x **V279 CROSSWORD CREATOR** A program that creates crosswords. UPDATED VERSION.
x **V284 MCAD PROGRAM** The Object Drawing Program for the Amiga ie CAD
x **V285 EDUCATIONAL : TYPING TUTOR** A Simple typing which measures your speed on the keyboard.
x **V291 POSTSCRIPT INTERPRESTER v1.5** Down load any Post Script Fonts to your printer. Like a laser Printer.
x **V298 NORTH C v1.3 (2)** The most famous C language on the Amiga, Encludes all files required.
x **V301 EYE OF THE BEHOLDER HINT BOOK** Inc introduction, Background, Maps, Strategy & Solution.
x **V304 CHAOS STRIKES BACK HINT BOOK** Inc introduction, Background, Maps, Strategy & Solution.
V306 A-GENE v3.125 Lastest version of the Family Tree program. Reviewed in CU Amiga.
x **V311 JACK NICKLUS COURSE DISKS (5)** A selection of Extra courses designed with the construction kit.
x **V323 ANALTICALC SPREAD SHEET (2)** This is the best spread sheet program to date on the Amiga.
V327 THE SOUND TRACKER CONVERTER Load in a sound tracker tune & save an executable File.
V330 RED SECTOR EXTRAS DISK 1 On this disk are : 32 point Fonts, 16 Point fonts, vector stats, Star fields & music Space Journey Lorna. By The deadzone Troopers.
V331 RED SECTOR EXTRAS DISK 2 On this disk are Big logos,little Logos,Vector Stars, Starfields, Bob Anims, Vector Objects, Vector Ball Objects & various fonts.
x **V332 AMIGA PUNT PROGRAM** Predict which horse will win with this horse prediction program.
x **V333 KING JAMES (4)** This version of the Bible By King james has been typing onto disk & Packed on (4)
V338 TRANSFORMER v3.3 This is the Latest version of the IBM Emulator disk. Require an MS-Dos disk.
x **V339 SPECTRUM EMULATOR DATA DISK 1** Adventure Classics needs v216 or v443
V340 TSB VECTOR DESIGNER The Special Bothers presnets The TSB Vector designer **v1.1,** This program will create filled vector objects, line vectors & Bobs.
x **V341 CLIP ART COLLECTION 2:** Eight more disks fully packed with excellent clip art. **(8)**
x **V349 SID v1.06** Replaces the CLI Command line & makes life very easy. Recommended for all
x **V350 BUSINESS CARD MAKER** Design your own Business cards on the Amiga.
x **V354 PDS UTILITIES No 13 : FREECOPY,** Removes protected games copy protection so that the user can install them on his/her hard disk. **DCAT,** Can create your own disk catalogue. **SCENERY,** Creates some excellent fractal based land scapes. **NUKE v1.4**
x **V358 GENESIS LANDSCAPE** Sculpt or Mould any fractal landscape in various types & sizes, Shareware.
x **V361 PDS UTILITIES 14 : MODCONVERT,** Program. **NOISE PLAYER,** Program. **MULTI PLAYER,** Program. which will play various modules not just one type.
V365 RED SECTOR MODULES (MUSIC) : Various music modules for use with the RSI Demo Maker .
x **V366 600 BUSINESS LETTERS** There are over 600 Standard business letters on this disk. Can be used as they are, or insert some parts into your own letters/text.
x **V390 THE DESK TOP PUBLISHING PROGRAM** The first amiga PD Desk Top Publishing program. Includes various extra features over the old Word processor, Text Editor, Graphics editor & loads more.
x **V392 AMICASH BANKIN** The best bankin program that i have ever used on the Amiga. easy controls.
x **V393 PDS UTILITIES No 15 : BOOTGAMES,** The idea is to install one of two games onto your disks bootblock. **Brackout & Breaker,** Very simple to use. **BOOTGEN,** Another boot block program. **BOOTPIC,** This program will install any IFF picture onto your disks bootblock. **TRAINER MAKER.**
x **V394 CHEMESTETIC,** A program that draws molecules using the calotte model. Excellent effects.
V395 UEDIT WORD PROCESSOR v2.6h This is an excellent Word Processor with various learn modes, Menu customization, Hypertext, On line help, A teach mode, Split windows, Copy, Paste, Undo & More.
x **V396 PDS UTILITIES No 16: DATAEASY,** Excellent Database program. A pice menu driven system. **LANDSCAPE,** Based around a landscape drawing
x **V397 MANDELBROT ADVENTURE KIT** A well done mandelbrot Generator with full source Code.
x **V399 PDS UTILITIES No 17 : STITCHERY,** A nitting pattern program. **SMOVIE,** Video production scroller.
x **V400 RAY TRACER CONSTRUCTION KIT** A Ray tracer for the Amiga computer. Load Workbench first
x **V401 WINDOWBENCH v1.0 (2)** An excellent Work-bench II replacement for all v1.3 users. Recomended.
x **V403 AMOS UPDATE v1.32** This is the latest RAMOS update for the Amos Programmer.
x **V410 PDS UTILITIES No 1: PRINTING UTILITIES** PPType, PPShow, ABFD, View, Tiny Print, **FASTJET,** A program for Deskjet 500 users you want to use the resolution enhanced graphic set. **GWPrint II .**
x **V413 WORKBENCH 2 & WORK STATION** This is not just another workbench clone. It's a collection of utilities with the Workbench theme. **(2)**
x **V415 VIDEO SCREENS:1** Excellent back ground pictures for video production work. Nice back drops.
x **V417 SUPERBENCH & EXTRAS (2)** An excellent re-placement disk with more utilities than the original WB.
V420 CURSOR BASIC COMPILER Compile any Amiga Basic program with this utility disk.
x **V423 C: COMMANDS** This disk is filled with utilities which can be used in Startup-sequences
x **V424 PDS UTILITIES No 18** Utilities include, **Anti-flicker** program, Said to stop the flicker in High Res. **Atari ST Emulator**, Program to turn your amiga into an ST.

x **V431 IMPLODER v4.0** Reduces file size for sorage on hard drives our your own collection disks.
x **V433 ANIMATION STUDIO** An excellent Animation crestor for you to make your own.
x **V438 OPTI UTILITIES v2.0** This disk is packed with some excellent hard disk utilities.
x **V439 AMIGA C: MANUAL II** This manual is the complete C manual for the Amiga & describes open & work with all parts of the C system. It also contains various examples, some simple & some morecomplex all the way through the disks a tutorial is there to help you out. **(4)**
x **V443 SPECTRUM EMULATOR v1.2 By KGB** Main updated feature is it now has sound ability.
x **V444 PRINTER DRIVER UPDATE DISK III** Now contains instructionon how to install them. All previous drivers included on this disk. Over 90
x **V445 JRCOMM v1.02** This is the latest version of the excellent modem based computer program.
x **V455 LAND BUILDER** A fractal generating program to generate landscapes.
V463 SUPER C: COMMANDS The disk is not as full as some others but comes with full instrustion.
x **V468 DIGITAL ADRESS BOOK** Collect & save your address lists on computer. Shareware.
x **V475 P.SUITE v1.4** A collection of programs called **P.Write**, a simple word processor, **P-Draw, P-Render** and much much more. Excellent disk
x **V479 CHESS & CHESS UTILITIES** A collection of chess related Puzzles, Programs & Utilities.
V483 THE RIPPERS GUIDE A collection of help full utilities for people you rip pictures & sounds.
V484 ADVETURE SOLUTIONS (2) Another good collection of adventure solutions for various games.
x **V489 AMIBASE PROFESSIONAL II** The latest updated version of the excellent Database progam. now includes various excellent new features.
x **V490 MESSY SID II** This is the latest version. It will read MS-Dos disks and tranfer any text files to & from the PC disk / Your Amiga. So you can do work on an IBM or an Amiga and swap text between them.
x **V492 JAM RIPPER v1.7 & JAM CRACKER v1.0** Also contains an excellent music ripper program.
x **V493 DESKBENCH (3)** This is an excellent Workbench replacment with special utilities.
x **V497 BEATRIX POTTER CLIP ART** An excellent collection of clip art for any DTP program or Dpaint.
V498 THIEF SOUND RIPPER v3.0 Finds Sidmon 1, 2 (Midi), JHam cracker, future Composer, Sound monitor, Noise/Protracker, Startrekker, Delta, sound system, david Whiaker & Noisepacker.
x **V499 STAR CHART v1.2** This is an excellent star plotting program with some intesting features.
x **V509 MED v3.2** This is another update to the Ultimate sound music Editor program.
x **V510 LITTLEBENCH** This workbench replacement is the first one for the new Amiga 500p Computer.
x **V515 THE A64 PACKAGE v2.0 (2)** A very complete C 64 Emulator Actually runs faster that 64. Runs 64 basic. Transfers disks from your original 64 disk drive with a shareware lead.
x **V517 VIDEO & AMIN : VIDEO_DB,** A program for keepin track on your video tape collections. **RTAP,** Lets you play large Anims on small Mem machines.
x **V518 IMAGE LAB** Performs many effects from simple averaging to fast fourier transforms. **Tools On Tap,** Does fades, colourbars & gray bar generation.
x **V519 STILLSTORE** Used to create over the shoulder graphic inserts like the 9'0 clock news.
x **V520 GRAPHICS : AGRAPH,** Creates colourfull pie, bar and line graphs. **PICBASE,** Shows reduced versions of all your IFF pictures. ** Requires V522
x **V521 PLOTTING & GRAPHICS: PLOTXY,** A powerful full featured plotting package. **PLANS,** A well done computer aided drafting program.
x **V522 ARP V1.3 : Conman v1.4,** Makes many im-provements to AmigaDos & makes your system easier to use. Includes full users developers guide.
x **V523 DICE C COMPILER (2)** Matthew Dillons full feat-ured powerfull C compiler & enviroment system.
x **V525 LABEL MAKER v1.3** An excellent disk printing program with various new features.
V526 DRAW MAP v3.1 (2) Will now generate any 16 colour palette with user control, New features include larger maps with national boundaries, improved help and printing. 1.2Mb. (1Mb version on disk V263)
x **V528 PDS UTLS:20 : SUPERDUPER,** Another excellent disk copy program. Latest update with new feature. **Diskspeed & FullView.**
x **V529 FRACTAL & SCULPT 4d: Tree 4d,** Creates sculpt 4d trees with leaves. Contour 4d, IFSGen & Plasma.
x **V530 BUDGET** A program to help managing personal finances. This is a update to disk V280.
x **V536 CATALOGUE UTILITIES** A collection of utilities used to Catalogue disk/ Video/ Tape collections **(2)**
x **V543 DISK STATION (2)** An excellent workbench replacement with built in utilities like Sid and others
x **V546 KIDS PAINT** A painting program designed for children. Includes various colours and speech.
V547 RADBENCH v1.4 Another workbench replacment /Enhancement disk.
x **V549 ELECTROCAD v1.4** Another Updated on the cad drawning preview written in Amos.
V550 KEFRENS POWER UTILITIES : NewTopaz, Power Fonts, Create, Edit or change any 8x8 or 16x16 fonts. **Window,** Change size of dos windows.
x **V551 THE SUPER KILLERS V2.3: BOOT X v4.40,** This is the best virus killer disk to date kills over 232 virus & may be more, Includes excellent killers. Including **VC v6.0, Zero virus III v1.20 & VT v2.37.**
x **V552 PRINT UTILITIES** Disklik, HyperCat, Label print, Super rellab, LabelBase II.
V553 SHADOW UTILITIES Raster Blaster II, Simplesinal & Text Writter **v1.0.**
V554 R.S.I. MUSIC MODULES 2/3 Another selection of music from Red Section. **(2)**
V556 RED SECTOR HELP DISK Another disk to help you use the Red Sector Demo Creator.
x **V557 TOO SEXY UTILITIES** A very large selection of utilities including, V-Checker, Print Studio, Super Dupper & Nuke. Far to many utilities to list.
V559 PUMA TRACKER v.99 Another good sound tracker close. Used to create the music from Taki.
V560 10 AMIGA PD COPIERS A collection of copiers like amigaCopy, Coder copy, Pcopy, Rattlecopy & more.
x **V562 MORE UTILITIES PopDir, Exchange, QCal,** Excellent little calendar program. **PhoneDir.**
x **V567 PRINTER DRIVER GENERATORS** A selection of utilities with various excellent Printer Driver Generators.
x **V569 DUNGEON MASTER MAPPER** A littletool that creates maps of dungeons (and eventually towns) which can be used by a DM for use in a AD&D game.
x **V570 CHRIS HAMES UTILITIES : DIRWORK v1.51,** Excellent file copier simulal to diskmaster & Sid but contains more commands to hand. Recommend.
x **V571 WHOM II v2.02 (2)** An update to the Dr.Who database program. Gives all info on Dr.Who progs.
x **V573 FILE & HARD DRIVE MANAGEMENT (2) : HDCLICK v2.0,** A program selector to make Hard disk Menus. Starts with gadgets.**FILE MINDER,** Utility for maintaining files & Directories. **DOSCONTROL,** Tool that combines the functionality of many separate tools.
x **V575 HOME BUSINESS PACK (6)** An excellent selection of utilities based on word processing, Data Management, Spread Sheets, Accounts & Printing.

x **V581 PDS PRINTING No 3 : PRINTER DRIVERS,** HP Deskjet 500 & 500 Colour, Canon BJ10e, BJ130, BJ300, Nec24p, Oki24p, 39p, Star24p, Panasonic9, Seikosha9. **HPMODE,** For use with Deskjet 500
x **V582 DB,** A Database with upto 50 fields,max of about 1.2 million records. **CLICKDOS II,** Is an Amiga Dos enhacement utility. **FILEFIND & SUPERVIEW v3.0**
x **V583 ICONEDITOR III v2.0,** Can create Icons upto 640x200 pixels. **DOCTORICON v1.0,** Imports images as icons, Can Edit & Create any Amiga icons.
x **V584 EDUCATION : FASTFACTS,** Everything you ever needed to know about the solar system. **WORLD MAP,** Produces different sorts of world maps. **PLANETS,** Instant locations of plants. **MATH MOUNTAIN**
x **V585 ARCHIVERS** A selection od most archivers, like LHArc, Zoo, LHWarp, Pak, LZ, PKAZip, Zap, Zippy & more.
x **V586 FONTS & C: COMMANDS : DISKSALVE,** Repairs damaged disks. **SWEEP,** Free unUsed allocated memory.. **FONTASSIGN,** Assigns fonts to the SYS path.
x **V587 GELIGNITE FONTS (2)** A selection of Amiga fonts for use with any DTP Package or Dpaint disks.
V590 CRUNCH N COPY A selection of programs that will crunch files & Copy disks for safe keeping.
V591 HAMLAB IFF CONVERTERS GIF to IFF & back. Used with the GIF Machine to convert Pic to the IBM
x **V592 MICRO EMACS** This is an excellent Word processor also comes with a Spell checker program
x **V593 TEXT ENGINE v3.0** Another excellent word processor program Simple but will do the job
x **V598 DATABASE WIZ** This program will record all your Names & Address. Easy Database program.
x **V599 BBASE II v5.3** This disk is one of the most well known database program. Recommend.
V600 DELTA MUSIC EDITOR An excellent Music editor program. A new flavor in music creation.
V601 AUDIO MAGIC v2.0 The latest collection of music based programs. Excellent selection.
V602 UNICOPY New disk copy program with various extra features with onboard features.
x **V603 POOL FORCAST** An extra helping hand for people who monitor the pools.
V604 PD COPY v3.0 New disk copy with some extra commands & quick copy modes built in.
x **V605 PRO CALC v1.0** An excellent production which will produces graphs. See AF32 for review
V606 SAMPLE MAKER v1.0 This program works in a similar way to synthesisers. just choose the wave form, alter it to taste & insert into your sample.
V607 PRO TRACKER v2.0 A music Editor, which you can create music with, Also load any sample.
V608 DCOPY v2.0 This is the best copier yet, powerfull commands with deep scan modes.
x **V610 GOLF SCORES v1.82** Golf scores just got better with easy charts to keep your averages upto date.
V611 FOOTBALL LEAGUE EDITOR Update your leagues positions for instantfootball league Info.
x **V620 ASPICE v3.2** Circuit analysis program which has been modified to run on theAmiga.
x **V621 EDWORD v2.2** is a fully featured & opera-tional text / Word processor which offers all standard features & More like Powerful search routines, use any 8-point Amiga font & has a built in virus checker.
V624 NIB COPIER v2.0 The latest update to that excellent disk copy program. Requires 2 disk drives.
V625 NCOMM v2.0, It's here the long awaited update to the best moden related program on the Amiga. Also contains a New version of **LHArc.**
x **V627 DPAINT FONTS No's 1-3 (3)** The latest selection. Fonts for use with any IFF DTP Program (3)
x **V630 AMICASH** Another excellent program to keep a track of all your checks & expences.
x **V634 DUNGEON MASTER II MAPS** IFF maps for FTL's Dungeon Master II. Load through Dpaint.
V635 IBeM EMULATOR This is the best IBM Emulator which supports various colour monitors unlike all the others. Voted best shareware program.
x **V636 SHADES & FADES : TURBO TITLE,** Video titler especially suited for inserting film subtitles. **STAR BLANK,** Blanks screen & desplays a 3d Star Field.
x **V637 TWIN EXPRESS v1.1a (2)** Trans any files) direct from an Amiga or IBM Pc. By connecting the Two machines together with a null modem cable. Currently runs at board rate 115200. Thats fast.
x **V640 SCALABLE FONTS (5)** Excellent fonts for use with any Desk Top Publishing Program. A Pd First

THE STAR TREK SELECTION

x **AT05 KLINGON D7 CRUISER,** fires torpedoes while passing by. **NCC-1864 RELIANT,** Very good anim indeed.
x **AT10 ENTERPRICES,** Leaves the Star station dock. **NCC 1701-A,** The classic original Animation.
x **AT17 THE TWOK NCC-1860,** Reliant & the NCC 1701-A-Enterprise. **MENSCH ROBOTER.**
x **AT18 TWOK-0,** Anim **NCC 1860 Avenger & NCC 1701-A-Enterprise.** NCC 1089 Grissom.
x **AT22 APPROACHING VESSELS,** Animation, Binary Flight Wireframe landscape by T.Richter
x **AT23 STAR TREK FLEET MANEUVER,** NCC-1940 Fly over & by animation. excellent classic
x **AT33 THE PROBE II,** Animation. **BRID OF PREY,** Animation from Star Trek. **KLINGONHIT.**
x **AT34 LEAVING SPACE OFFICE,** Animation. **DOCKING,** Animation from star trek. **ATTACK MODE,** Bird of Prey Scout hip in attack mode.
x **1060 STAR TREK THE NEXT GENERATION,** This game is by Terry A. Mc Intosh. v1.47 *
x **1081 THE UTLTIMATE STAR TREK (2)** Game by Tobias Richter. Now with English instructions.
x **2222 STAR TREK THE NEXT GENERATION** This is the latest quiz game based on the Next generation **(2)**
x **SMAUG120** The **STAR TREK** Game by Eric Gustafson US Inport requires **1Mb** & **(3)** disks.
SMAUG156 The **STAR TREK** Game by Jimbo Barber The American version **1Mb** & **(2)** disks.
x **AMUSE19 TREK73,** A STAR TREK Battle Simulator where you can attack klingons & Romulans
x **V367 STAR TREK INFORMATION** A Database of all the original series. Very Detailed.
x **V616 THE FINAL FRONTIER ISSUE 1** This is a disk magazine based on Two disks both packed. **(2)**
He are the best NEW Mega demo's from our collect-ion from the past 2 months. The BESt are listed below

MEGA DEMOS

1988 RAY OF HOPE II BY MAGIX 12
2028 IBB MANGAD MEGA DEMO
2137 THE WILDFILE MEGA DEMO
2250 ODYSSEY ALCATRAZ (5) This 5 disk space Odyssey needs to been seen to be beloved. Brill
2259 HARDWIRED CRONICS (2)
2375 FEEL THE VIBEL BY DIGITAL
2379 FLASH FOR FANTASY BY SANITY
2391 RHYTHM NATION BY TLB (2)
2400 DIGITAL DISCO II BY CHROME (2)
2404 SKIN EGG ANIM BY EVA CORTESE (3)
2413 DEVILS 'COLOURS' MEGA DEMO

ERIC SCHWARTZ SECTION

x **1700 ANTI LEMMINS** Anim Requires (2) 2Mb
x **1703 THE DATING GAME** Anim requires (2) 2Mb
x **1842 SHUTTLE COCK** Animation (1Mb)
x **1850 LATE NIGHT & TERMINAL** Anim (1Mb)
x **2013 AGILLITY** Animation disk (1Mb)
x **2021 VIETNAM CONFLICT** Animation (1Mb)
x **2133 GULF WAR CONFLICT (2Mb)**
x **2307 AMY AT THE MOVIES II (4) 1Mb** Only.
x **2311 AMY vs THE WALKER II (2) 3Mb**
x **2384 AMY AT THE BEACH (2)** Probley the best animation by ES to date, Excellent **3Mb**
x **2427 CAMOURFLAGE ANIM 1Mb**
x **2428 MR POTATO HEAD'THE CIRCUS ACT (2)** By Chris Hill. know this is not an ES Anim but it upto his standard & features one of his characters The Harrier. Excellent story.
x **2430 SKUNKS & HUNKS:POGO II** Animation **2Mb**
x **SMAUG302 AMYHIST** Introduces Amy the squirrel
x **SMAUG303 BATMAN,** Another Animation **VTOL,** about a Harrier vs Propeller plane contest.
x **SMAUG305 HOW TO RUN,** How to run into a wall. Very funny Animation by Eric Schwartz.
x **SMAUG306 AMYWALKS,** Anim of Amy the squirrel Walking. **AMYJOGS,** Anim of Amy the Squirrel Walking

THE GAMES SELECTION

1073 TETRIS ORIGINAL This is the closest game to the original tetris computer game. A Classic
x **1420 DTRIS** This is the best 2 Player Tetris game.
x **1454 MEGA BALL** An excellent Arkanoid game
x **1486 SOLITAIRE & SOLITAIRE ROYAL** Card games
x **1561 TRITWIS** This is the best version of Tetris on the Amiga. with 1 player, 2 player & 3 Payer options.
x **1735 ASTERIODS** 'THE ORIGINAL' Another old classic. This is the original classic computer game.
1747 LLAMATRON GAME 2001 By Jeff Minter Brilliant stuff & An excellent production. Shoot to kill
x **1749 SCRAMBLE** 'The Original'Remember that old classic well is now on the Amiga.The Shoot em up.
x **1870 PATIENCE'S,** This is the best version to date. **DOMINOS,** Play vs the computer or another player.
x **1977 POM POM GUNNER** Shoot down the incom-ing world war II air planes in this Operation Wolf type game
x **1981 TRUCKING ON** A truck traveling adventure trading game. An excellent simulator. (2)
x **1984 AIR WARRIOR** The first real flight simulator on the Amiga with various Air planes to Fly
2018 JETMAN Another Spectrum classic converted to the amiga. It's JetPak with all the original sounds.
x **2022 SEA LANCE** The first Silent Service type sub war game within our Amiga PD collection.
x **2054 ATIC ATAC** A rendition of the game from the original Spectrum computer. Graphic Maze adventure
x **2161 ETHOS GAME** An excellent new role playing/ Stratery game. Load through workbench.
x **2162 BATTLE OF BRITIAN WAR GAME** 2 Strategy war games which both need loading through Wb.
x **2164 DUNGEON ON NADROJ** This is the best Dungeons & Dragons Public domain type game
2173 CARD GAMES, Various card games titled Cribbage, Blue Moon, King, Patience & Hearts.
x **2177 MISSION X : RAID II** This is a shoot em up game in the style of SWIV & 1943. Very good game
x **2178 SURVIVOR** A space based adveture game within the Aliens theme. Nice colourfull graphics
x **2179 ADVENTURES IN HELL** A collection of six games, Jedi, Star trek, Atlantis, Ring & Indication.
x **2180 SKODA CHALLENGE** An excelled 4 player hotRod game writen in Amos. Simple but good fun.
x **2185 BATTLECARS** Excellent Solid 3d Graphics. travel around, track down the other cars & destroy.
x **2199 PARACHUTE JOUST** You are falling down to earth. & must take the Parachute from the other player.
x **2219 NAPOLENIC WAR SIMULATOR v5.0** An excellent simulator program, Sent direct by the Author.
x **2220 STRATEGIC GAMES,** Eternal Rome, Lords of Hosts, In Moonshine. An Excellent collection of games.
x **2221 MIND GAMES 21** of the best Mind games to challenge your mind not your shooting skills.
2224 SWORD OF THE WARLOCK A Bards tales / Eye of the Beholder adventure game packed on three disks. The best Shareware role playing game on the amiga. Excellent Adveture. **(3) 1Mb (2 Drives)**
x **2265 HOLLYWOOD QUIZ,** A nicely produced quiz game with a choice of subjects. **DOWNHILL SKIING**
x **2272 BLACK JACK LAB** Play Pontoon upto 7 Players. The computer plays banker & knows the popular versions of the game.
x **2278 CARD SHARP** A very professionally presented selection of solitaire type card games. Excellent versions
x **2279 SUB ATTACK v1.0** Control the torpedoes & sink the enemy ships as they sail past. **LANDMINE.**
x **2280 DIPLOMANCY v2.0** A classic strategy game loosely based on World War 1. A very detailed game.
x **2313 REVENGE OF THE MUTANT CAMELS** By Jeff Minter The ride of a life time with mutant camels
x **2357 SPACE POKER** The alternative Poker Game
x **2411 TOTAL WAR** The board game version of RISK.
x **2412 FORMULA 1 SIMULATOR** Anaditive simulator
x **APD329 AMOS FRUIT MACHINE II** As near as possable to the fruit machine found in Pubs & Arcades.
x **SMAUG312 AMI MORIA v5.22** This is the latest update to the Original Moria adventure game. Better graphics, and the larest adventure to date. Excellent

LATEST AMOS & FISH DISKS

All Fred fish disks are Workbench driven but knowage of CLI/Shell may be required to run some of the programs. Most programs will work with Wb 2.04.

x **APD151 UNDERSTANDING AMOS** The Amos Tutorial Program Disk. A must
APD356 POWERBASE v2.0 This is an easy, friendly and Powerfully database which can handle 10,000 records.
F579 OCTAMED A music editor which was originally designed for making music for programs (demos, games, etc), but works well as a stand- alone music program as well. OctaMED is the 8-channel version of MED.
F580 WORLD DATABANK v2.2 Using a data base from the CIA, this program will plot world maps.
F583 SUPERSPELL A global spelling checker that checks your spelling no matter what program you are typing under. Comes with a 9000 word dictionary, which you can edit, add to or replace completely.
F590 SUPERDUPER v2.01 A very fast disk copier & formatter. Verified copies very quickly indead.
F593 ANALYRIM (2) An intergration of AnalytiCalc spreadsheet & RIM-5 Database management
F601 PP v1.4 Use this Patch to load Power Packer files into any standard word processor. Ie text Plus or Udit.
F602 MATHS ADV A simple game where you the young adventurer, must try to escape the Kings Math's adventure. After each room the questions get harder.
F621 IE, Icon editor with import & export commands. **MULTIPLAYER v1.17,** Plays most Music progs modules.
F628 LEGEND OF LOTHIAN v1.02 is an adventure game in the vien of the Ultima game series. Includes colourful graphics, hordes of monsters & puzzles to solve.
F629 ROCKY Another boulderdash clone. This one has loads of levels & is Joystick or keyboard driven.

BUDGET SOFTWARE (A500P Tested)

FREE POSTAGE & PACKING (P&P) **NO CHARGE**
1 Budget Title **£7.99** — **2 Budget** Titles **£7.79** Each
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Not content with supplying you with THE complete magazine for your Amiga, we also aim to bring you the hottest bargains, too. This month, we're offering money off United Graphics Artists' excellent *Powerpacker 4.0* – the ultimate in memory-saving crunchers. If you're keen to optimise disk space, this is an essential utility. So, what are you waiting for? Get ordering...



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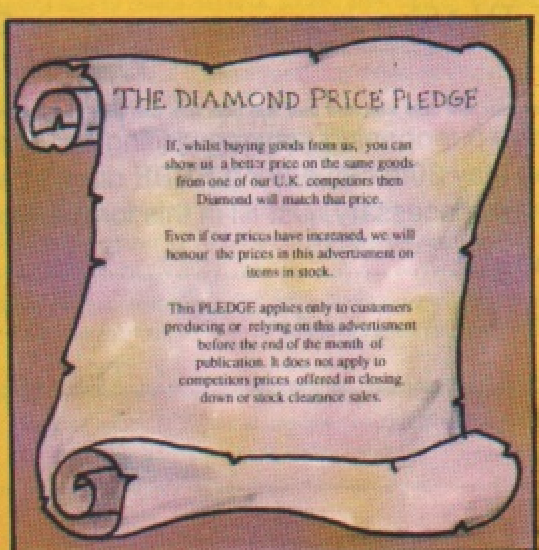
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blue pages

This month sees the introduction of two more columns in our bustling Blues. The first part of our in-depth look at ARexx begins on page 170, and promises to be the most comprehensive feature on the 'new' language to appear in any magazine. Our second new feature is the much-requested Music column, written by Tony Horgan, and which begins with a look at the recent MIDI show in London. As usual, our Comms and Education columns continue apace, both delving deeper into their respective subjects after last month's introductory features. If that isn't enough, there's also our buyer's guides, step-by-step tutorials and the controversial Points of View page.

contents. . .

sticky moments

After last month's huge joystick round-up of 15 top sticks, we're going to do it all over again. We've lined up another 11 of the finest joysticks money can buy and put them through their paces.

PART 2



1



2



3

Buying a joystick is easy. Buying one that doesn't fall apart or stop working within a week is another matter entirely. Faced with an endless array of rubber-necked wonders, each with its own ergonomic design and outrageous claims of longevity, it's a thankless and costly task choosing which one to pit against the likes of *Project X, Speedball II* or *Rainbow Islands*.

If you're fed up forking out a small fortune each month to replace faulty joysticks, then fear no more! CU's crack team of wagglers have been busy over the last two months putting some of the finest joysticks that money can buy through arduous routines and subjecting them to literally hours and hours of solid play. The result of all this waggling? Probably the most comprehensive joystick reviews ever! To make things easy, we've given each joystick an overall score as well as marks for innovation, durability, ease-of-use, comfort factor, and responsiveness.

1 HYPERSTAR

Spectra Video Price: £16.99

Looking more like a North Sea Oil Rig than a conventional joystick, the Hyper Star is probably best suited for left-handed players. If you're right-handed, you'll find the cord travels in the opposite direction to your Amiga and has to double-back on itself. With only a very short three-and-a-half foot cable to play with, right-handed users almost end up sitting on their computer.

The two firebuttons are very small, but each is split into two levered halves so that rapid fire is easily achieved by rocking to and fro between the buttons. There's also an auto-fire switch to make life even easier. The shaft is lightly sprung but with just enough resistance to make it easy to use, and the five suction cups are as good as super glue at times.

The biggest drawback is the rediculous design of the stick and, in particular, the spindly legs which the suckers are attached to. I honestly cannot see them lasting for very long.

VERDICT: Good overall feel but spoilt by careless design.

INNOVATION	84%
DURABILITY	60%
EASE-OF-USE	75%
COMFORT FACTOR	78%
RESPONSIVENESS	78%
OVERALL	**77%**

2 CRYSTAL TURBO

Sonmax Price: £14.99

Transparent plastic joysticks may be a passing fad, but they are certainly intriguing. Featuring a mishmash of multi-coloured wires, circuit boards and soldered contacts, the Crystal Turbo looks the business. Complemented by a red pistol grip and two auto-fire buttons positioned at the base of the machine, the stick also sports Powerplay's 'Triple Action' auto-fire. This means that you can opt to fire at your own speed with the auto-fire switched off or, with the auto-fire switched on, the stick is capable of spewing out short rapid bursts or a more deadly continuous blast (depending on a game's configuration).

Other refinements include fully microswitched buttons and eight-way controllability with an adequate five-and-a-half foot lead. The stick's travel is small, allowing for quick rapid movements on screen. It doesn't feel particularly well constructed, but held up to hours of intense testing. I must admit to some degree of bias here, though, as a Turbo joystick was one of the first sticks I bought and I still have a liking for them.

VERDICT: Well-proportioned stick with good response and feel.

INNOVATION	80%
DURABILITY	75%
EASE-OF-USE	84%
COMFORT FACTOR	84%
RESPONSIVENESS	82%
OVERALL	**82%**

3 HOT STUFF

Euromax Price: £9.95

With a name like Hot Stuff, you just know that this stick is going to be bad. And it is.

It looks so cheap and nasty that even the most tasteless gamesplayer would turn their nose up at it. Fool that I am, I decided to give it a go with a couple of games and, predictably, the stick was every bit as bad as I had supposed. Response is awful, with little tactile feedback, and the cord length is a miniscule three-and-a-half foot! When the box mentions such amazing features as 'stress relief cord' (which is standard on almost all joysticks) and '4 rubber suction feet', you just know that even the makers of the stick are struggling for something to say.

Okay, so it possesses such features as an auto-fire switch (gosh), 8 directional control (wow), and a contoured handle (zoinks). Unfortunately, these are standard on almost every stick on test, but that doesn't stop Beeshu crowing about them. And if you're really a glutton for punishment, it comes in four garish colours: bright yellow, pink, blue and green.

VERDICT: Definitely the worst joystick we reviewed!

INNOVATION	5%
DURABILITY	25%
EASE-OF-USE	15%
COMFORT FACTOR	7%
RESPONSIVENESS	8%
OVERALL	**9%**







4 FOOTPEDAL

Spectra Video Price: £24.99

What, you may be asking, is this weird-looking contraption?! It certainly doesn't look like a joystick, that's for sure.

In fact, the Footpedal is probably the ultimate accessory for people who take their driving games seriously. Used in conjunction with a conventional joystick, the Footpedal can selectively take over three controls from the connected stick. For example, on a typical car racing game, the three foot pedals can be used to incorporate the up and down movements on a joystick and take over the gear change/fire button function. So, with this in mind, you can now move the car side to side using the joystick, while the speed and gear changes of the on-screen car are dictated by pressing one of the foot pedals. For extra realism, it's possible to use the device with the Zoomer steering column (reviewed last issue) so you've got a near-arcade perfect representation of a coin-op conversion.

Its use doesn't end with racing games, however, as the device can also be used in virtually any other game you feel comfortable using your feet instead of your trigger finger. We tried it on *IK+* and found that it worked a treat, transferring some of the deadly kicking moves to the pedal.

Admittedly, it does take a while to get used to the new control method, but once you've adapted to it, you'll never want to go back. The machine is also sturdily built and uses industrial standard micro-switches. The configuration device allows you to transfer any four-way joystick movement or firebutton control method to the pedal.

With colour-coded pedals and an almighty 8-foot cable, plus joystick adapter, the Footpedal is unique and adds a new dimension to almost any game you care to mention.

VERDICT: Highly innovative and, what's more, it actually works.

INNOVATION	100%
DURABILITY	91%
EASE-OF-USE	90%
COMFORT FACTOR	80%
RESPONSIVENESS	90%
OVERALL	**89%**

5 MEGA STAR

Spectra Video Price: £24.99

Obviously designed with the right-handed gamesplayer in mind, the Mega Star is another one of those transparent sticks, finished off with a nice orange trim. The knobbly stick has a recess in the top which is a nice idea and is presumably there to rest your thumb.

It's quite a bulky stick with five suction cups to plant it firmly onto any convenient flat surface. It's also extremely well made and you'd have to run a steam roller over this one to cause it any harm. But that's half the problem – it's so well made and so sturdy that it's difficult to use! The shaft is so well sprung that it's stiffer than most ST users and I doubt if anyone could use it for more than an hour at a time without their hand seizing up in muscle spasms.

Curiously, the three-and-a-half foot cable is attached at the wrong end of the stick so it has even longer to travel to the Amiga. This means, in practice, that you've got to be virtually on top of your machine to even use the stick. The firebuttons come in three different button sizes to stab at. It's definitely for table-top users ownly as its incredibly cumbersome design and hefty weight prevents it being portable enough for hand-held use.

VERDICT: Too bulky and well-sprung to be of much use.

INNOVATION	80%
DURABILITY	96%
EASE-OF-USE	76%
COMFORT FACTOR	70%
RESPONSIVENESS	65%
OVERALL	**72%**

6 COMPETITION PRO

Star Price: £19.99

Arriving in a Pop Art-style box, the Competition Pro is a gleaming stick constructed from chrome-effect plastic with a mottled blue transparent base. If that's not enough to set you dribbling, the stick also handles as well as it looks.

Using a sturdy steel shaft for prolonged life and a spring-return so that the stick is recentered after each movement, the Pro is ideal for fast-paced arcade games although not particularly well-suited for flight sims. Two large firebuttons at the front of the machine cater for left or right-handed players while two small triangular keys provide temporary rapid fire or temporary slow motion. Towards the back of the joystick base is a switch which activates continuous fire or continuous slowmotion.

A five-foot cord, coupled with a comfortable hand-grip, helps make the stick even better. The nobbly handle and long stem also affords more controllability with the micro-switches giving a tactile feedback and a reassuring click each time the stick is moved.

VERDICT: A classy stick with a proven pedigree.

INNOVATION	82%
DURABILITY	90%
EASE-OF-USE	90%
COMFORT FACTOR	92%
RESPONSIVENESS	94%
OVERALL	**92%**



7 PYTHON 1

Spectra Video Price: £10.99

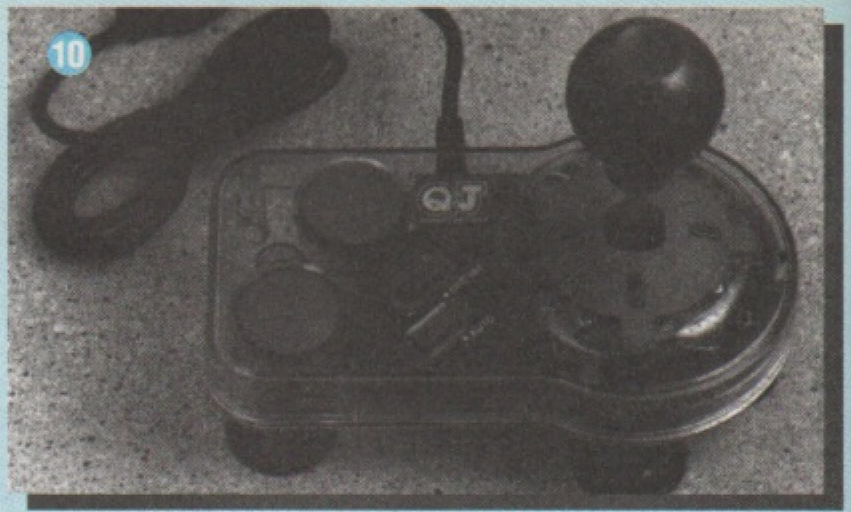
Too big for a hand-held, the Python 1 is a table-top joystick with 'bio-grip' (advertising agency talk for a comfortable pistol grip that fits the hand to perfection), and was one of the most comfortable sticks we tested. Its sleek design is complemented by two firebuttons perched on top of the handle, with an auto-fire switch placed just below the thumb.

The lack of micro-switches doesn't give a very positive feel when in use, but for those who prefer leaf-sprung joysticks you won't find much better. The length of travel is about right for a flight sim although the stick under-performed when put through its paces on some of the more demanding arcade shoot 'em ups. The rigid stickers will afix the device to most smooth surfaces and the six-foot cable is more than adequate.

VERDICT: Stylish and sleek, a definite winner.

INNOVATION	85%
DURABILITY	88%
EASE-OF-USE	89%
COMFORT FACTOR	90%
RESPONSIVENESS	84%
OVERALL	**86%**





8 ALPHA-RAY

Logic 3 Price: £10.99

Looking very similar to the Sigma Ray (reviewed last issue), the Alpha Ray uses the same pistol grip but has a smaller base so it's just about possible to use it as both a table-top and as a hand-held. Most of the comments made about the Sigma also hold true for the Alpha: it's a stylish stick more suited to flight and racing sims rather than the ultra-fast arcade-orientated games. I also found the micro-switched firebutton a little loose.

Cord-length at a pathetic fourfeet is nowhere near long enough if you consider the mass of wires which encircle most people's Amigas. The suction cups worked well, though, and virtually bolted the machine onto the table. The pistol grip was very comfortable, too. The firebuttons fell nicely under the thumb and index fingers, although their response wasn't brilliant due to the slackness of the micro-switches. Conversely, the eight-way micro-switched shaft worked a treat.

VERDICT: Gorgeous to look at stick with a solid feel to it.

INNOVATION	81%
DURABILITY	83%
EASE-OF-USE	83%
COMFORT FACTOR	87%
RESPONSIVENESS	85%
OVERALL	**85%**

9 JETFIGHTER

Spectra Video Price £12.99

Apparently aimed at the flight sim specialist, the Jetfighter attempts to mimic the yoke of an aircraft control lever. Unfortunately, the feel just isn't right as the lightweight device is both too tinny and cumbersome to be practical.

The large base limits its use to that of a table-top device, but the cups proved more than capable in fixing the machine to any flat surface. The twin firebuttons, positioned so that they fall beneath the thumb and index finger, offered a positive click when depressed, but didn't feel particularly positive or robust.

Autofire comes as standard and is also variable thanks to a sliding scale. The three and a half foot cable is miserly and the whole thing seems insubstantial and lightweight. Not a particular favourite around the office.

VERDICT: Cheap and nasty, offering a poor response and poor controllability.

INNOVATION	52%
DURABILITY	54%
EASE-OF-USE	57%
COMFORT FACTOR	52%
RESPONSIVENESS	50%
OVERALL	**52%**

10 SUPERSTAR

Spectra Video Price: £13.99

A distant cousin to the Megastar, the Superstar is a cut-down version of the same stick, although it's still too bulky for hand-held action.

Possessing five suction cups and a three-and-a-half foot cable, at least the Superstar's connecting lead exits at the right point for easy connection to the Joystick port. Another major difference between the machines is the thin steel shaft which is much looser than the Megastar's and is very easy to control. Although industrial-standard microswitches are used for the stick mechanism, the fire buttons have sprung-leaf switches which aren't as effective.

Overall, this is a belter of a stick with brilliant control. *Project X, Speedball 2, Kick Off 2* and *R-Type* proved no problem and even flight sims responded well to the stick's control. It certainly looks nice, due to its transparent features and curved design and, as with all QJ sticks, it's certainly built to last.

VERDICT: Despite the poor response from the fire buttons, this is one of my favourite sticks.

INNOVATION	78%
DURABILITY	90%
EASE-OF-USE	85%
COMFORT FACTOR	79%
RESPONSIVENESS	84%
OVERALL	**84%**

11 MANTA RAY

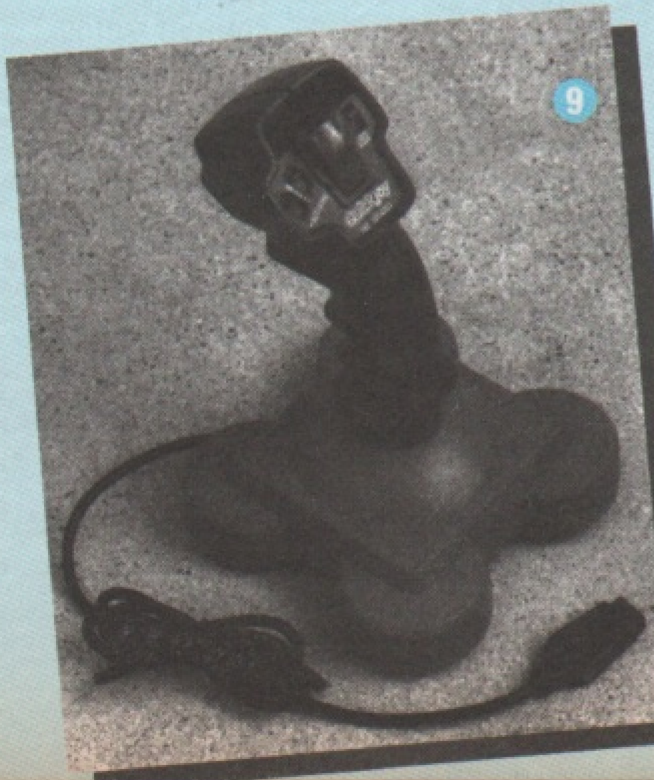
Logic 3 Price: £11.99

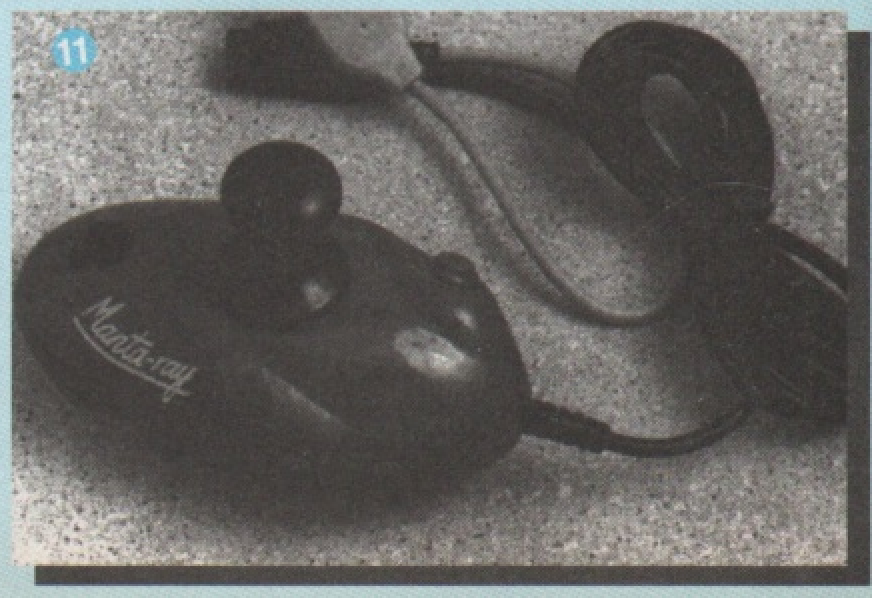
If you thought the Sting-Ray (reviewed last month) was strange, then the Manta-Ray propells joysticks into a totally new and weird dimension. It's bizarre shape has been designed to fit the palm of the hand and, although looking suspiciously like a beached whale, it is remarkably easy to hold and control. The nobbly shaft is the same as the Sting-Ray's and is positioned on top of the device offering excellent control. The index and middle fingers cover the two firebuttons recessed in the four finger grip at the side of the device and prove remarkably well-positioned for continued firepower. There's also an auto-fire facility and thruster button, the latter strategically placed under the thumb.

Cord length is a meaty six feet and the fully micro-switched stick responds excellently and never once malfunctioned during more than four hours of continuous testing. It might be one of the ugliest sticks we've reviewed, but it's also one of the most responsive and easy to use.

VERDICT: No beauty, but offers solid controls.

INNOVATION	94%
DURABILITY	89%
EASE-OF-USE	89%
COMFORT FACTOR	92%
RESPONSIVENESS	85%
OVERALL	**89%**





THE ULTIMATE JOYSTICK

BUYER'S GUIDE

The CU team have been avidly putting some of the top sticks through their paces over the last three months. The following table lists all the sticks we've reviewed so far, with contact information and overall rating, plus a few sticks that arrived too late for a full review.

JOYSTICK	PRICE	COMPANY	AUTOFIRE	CABLE LENGTH	OVERALL SCORE	VERDICT
Sureshot Standard	£10.99	Sonmax (0457 876705)	No	5 foot	75%	Fails to meet expectations
The Bug	£14.99	Cheetah (0222 555525)	Yes	5 foot	52%	Looks cute, but plays like a brick
Tortoise	£19.99	Cheetah (0222 555525)	No	5 foot	11%	One to avoid!
Navigator	£15.32	Konix (0495 350101)	Yes	51/2 foot	58%	Strong on ergonomics, weak on playability
Cruiser	£10.99	Sonmax (0457 876705)	No	5 foot	82%	Stands up well to serious waggling.
Speed King	£12.25	Konix (0495 350101)	Yes	6 foot	82%	Looks aren't everything. Definitely worth a test.
Controller	£9.99	Quickshot (081 365 1993)	Yes	4 foot	37%	Solid construction, but not much else.
Prof 900 de LUXE	£34.95	Euromax (0262 601006)	Yes	4 foot	86%	Smart and stylish with plenty of manoeuvrability
Zoomer	£69.95	Euromax (0262 601006)	Yes	6 foot	92%	Costly, but essential for flight and bike sims
Switch Joystick	£39.99	Spectra Video (081 900 0024)	Yes	6 foot	92%	A stick with more options than the Stock Market
Sting-Ray	£13.99	Logic 3 (081 900 0024)	Yes	6 foot	79%	Weird design, but a nice stick
Sigma-Ray	£14.99	Logic 3 (081 900 0024)	Yes	4 foot	89%	Nice looks, solid construction, good value
The Ultimate	£34.95	Euromax (0262 601006)	Yes	61/2 foot	57%	If you want a table-top joystick look elsewhere
Superpro Zip Stick	£14.99	Sonmax (0457 876705)	Yes	5 foot	95%	The undisputed King of the sticks
The Arcade	£19.95	Euromax (0262 601006)	No	4 foot	86%	Tough, resilient and very manoeuvrable
Hyperstar	£16.99	Spectra Video (081 900 0024)	Yes	31/2 foot	77%	Poor design ruins an otherwise nice stick
Crystal Turbo	£14.99	Sonmax (o457 876705)	Yes	51/2 foot	82%	Good response and feel
Hot Stuff	£9.95	Euromax (0262 601006)	Yes	31/2 foot	9%	Absolutely awful – avoid
FootPedal	£24.99	Spectra Video (081 900 0024)	N/A	8 foot	90%	Innovative design that really works
Mega Star	£24.99	Spectra Video (081 900 0024)	Yes	31/2 foot	72%	Bulky and too stiff to be of much use
Competition Pro	£19.99	Dynamics (061 626 7222)	Yes	5 foot	92%	Classy stick with a proven track record
Python 1	£10.99	Spectra Video (081 900 0024)	Yes	6 foot	86%	The best leaf-sprung joystick available
Alpha-Ray	£10.99	Logic 3 (081 900 0024)	Yes	4 foot	85%	Good solid feel and construction
JetFighter	£12.99	Spectra Video (081 900 0024)	Yes	31/2 foot	52%	Cheap and nasty feel and performance
Superstar	£13.99	Spectra Video (081 900 0024)	Yes	31/2 foot	84%	Poor response, but still a favourite
Manta-Ray	£11.99	Logic 3 (081 900 0024)	Yes	6 foot	89%	No beauty, but offers solid control
125+	£9.99	Cheetah (0222 867777)	Yes	5 foot	80%	Firm feel, with a good response
Exterminator	£6.99	Cheetah (0222 867777)	No	4 foot	79%	Comfortable grip with long travel
Flashfire	£14.95	Euromax (0262 601006)	Yes	21/2 foot	67%	Long travel with good firebuttons
Terminator	£15.99	Sonmax (0457 876705)	Yes	51/2 foot	40%	Horrid stick design
Star probe	£14.99	Cheetah (0222 867777)	Yes	5 foot	38%	Shabby design with loose micro- switches

NEXT MONTH

In the first of a new two-part Buyer's Guide, we'll be taking an in-depth look at the humble mouse. On offer will be 10 of the best models available and each one will have been put through a gruelling series of tests. Be sure to be here next month for the definitive mouse test report.

BACKCHAT

KEY MISTAKE

I have been playing keyboards for ages and in the last year I have got into linking my keyboards with the Amiga. Every time I see an Amiga magazine that contains something to do with music I buy it! Your 'Sound Advice' article (April 92) is the biggest article I've seen so far – and the best. However, in part 4 of the article (A to Z of musical terms) you mention the Juno 6 as being 'A classic synth from Roland – one of the first polyphonic synths with MIDI.' Whilst I agree with the 'classic synth' bit (I've got one!), unfortunately it doesn't have MIDI. Do I get a prize for spotting this devastating mistake?

Kevin Baker, Birmingham

You are absolutely correct. The Juno 6 incorporates CV Gate, an analogue version of MIDI, which does more or less the same thing. We hope you can live with your loss!

MONEY MATTERS

I always buy your magazine and study it from cover to cover. I was wondering if you had any idea how I could possibly turn a good *AMOS* program into cold hard cash. How could you go about producing a commercial program in *AMOS*? Or make some money via a PD library?

Joss Styamb, Sutton

We're not sure what you mean by 'make some money via a PD library', but as far as *AMOS* goes you could try selling it to Europress Software, the company who produced the *AMOS* package. They often snap up good examples of work created on *AMOS* to use as demos to promote their product. As far as the PD scene goes, you won't get a penny unless you release your program as Shareware and include your address on the disk or via the official *AMOS* library. You'll have to rely on the purchasers honesty to send you a payment, though. The other avenue to try is magazines, they are always looking out for good cover items for their disks, but don't pester them unless you think your program is at least as good as their current crop of examples.

ANIMATION AND CREATION

Having ploughed my way through your animation and graphics special last issue (May) my head was left spinning. I am especially interested in Eric Schwartz's work and have longed to produce animations of his quality. I've got a long way to go but your last issue has given me the incentive, inspiration and drive to make it possible. Before I read the articles I thought that animation was simply a matter of sketching some pictures in *DPaint IV* and that was that. Now I've discovered *Movie Setter* and PD sample disks I'm sure it won't be long before you're interviewing me! Thanks.

Paul Steamer, Brighton

Glad you appreciated it, that's exactly why we did the feature, so that readers such as yourself would be kicked into action and do something themselves. Anyone who's got an animation please send them in. Eric can't be the only person in the Western Hemisphere capable of producing this kind of detailed work.

BOOT UP OR GET OUT

I want to make a disk comprising my favourite demos and applications and I also want it to be self-booting. How do I go about making my disk load upon insertion without entering the Workbench? I have an A500 and only one drive.

David Collins, Bude

Formatting the disk is not enough to get the machine to initialise with it. The Workbench disk, which you normally boot up with, has a special identifying code written on the disk. It is possible to write this code onto any disk using the install command.

On a single drive computer this can be quite difficult. First you should boot up as usual using the Workbench disk. Then you should open up a Shell or a CLI window and type in the following command: INSTALL? The Amiga will then respond with a prompt asking which drive is to be installed. Take out your Workbench disk and swap it for the disk you wish to boot up. Then type: DF0: and

COLOUR ME BAD

With regard to your articles October 91 – 'Flexible Friends' – and January 92's 'Colour Prints From Mono Printers'. Having only a small budget, but wanting the best quality printouts from my Amiga, I purchased the Canon BJ10EX with auto-sheet feed. My intention was to run black and white for documents etc. with the occasional colour print from my *DPaint*, *Mandlebrot* and Landbuild efforts. I ordered a copy of Flexijet from Care Electronics and then rang System Insight for my colour kit. That's when the fun started!

'Please can I have the three colour cartridges for my Canon BJ10EX so that I may print full colour – as described in CU Amiga,' said I. 'Sorry,' said they, we can supply you with the inks – no problem – but we don't stock the colour cartridges.' They then suggested if I did not have used cartridges I should empty out new black ones and fill them with coloured ink. They said they had tried but could not obtain empty cartridges from Canon. I then phoned Canon only to be told quite politely that they only produce black cartridges because the BJ10EX is a 'mono' machine. I referred to your articles and told them that this was a technical breakthrough for the budget user. I even sent copies of your articles to them and mentioned the method of emptying new ones by System Insight. I was told that they neither recommended this nor reusing old cartridges because the head would wear out and give poor quality prints. I cannot see how ink passing down a jet could produce any wear!

In desperation I bought three black cartridges and set about draining them as per instructions. A little tip here for all you out there that have tried this only to finish up with blocked cartridges that won't print properly and when they do, print a muddy combination of black plus colour. The kit sold by System Insight has two refills and one cleaning fluid per colour – the cleaner is nowhere near enough to remove all the black ink. I had to supplement it with about 1/2 pint of distilled water to remove the last of the black (make sure it's distilled so as not to block the jets with water impurities).

The next problem is getting into the cartridge. System Insight supply a snug fitting container that allows you to inject ink with the minimum of fuss. Inside the cartridge is an absorbent material which stops the ink from splashing about as the carriage runs from side to side on print runs. The ink passes from this through a fine mesh on the end of a tube to the nozzles. If you squeeze too hard to get ink into the cartridge, the absorbent material is forced by pressure against the mesh (rather like taking the plug out of the sink and putting a dish cloth in the bottom) and this causes a blockage.

Fill the cartridge with the filler hole facing up. This allows air to be forced out of the nozzles thus avoiding the pressure. If you have any difficulty with ink flowing, tap the cartridge lightly on a flat surface – I used a CU Amiga magazine to soften the blow (plug). this dislodges the absorbent material and away you go. Top class colour prints. It's just a pity Canon don't wake up to the fact that it's probably your articles that have increased the sales of their printers and if they franchised out a little cottage industry to fill empty cartridges, we wouldn't have the pain that always seems to come with the pleasures in life.

Peter Topping, Manchester

GOT SOMETHIN' TO SAY? CU AMIGA is the country's fastest-growing magazine, and therefore the premier forum to air your views on anything connected with the Amiga scene. Your comments can make a difference so don't be indifferent, drop us a line today.

press return. The disk should now be installed and you will be able to boot up from it. Remember that if you want to boot up from a disk you must have a start up sequence in the S: directory to tell the Amiga what to do.

BARGAINS GALORE

After picking up a computer magazine for the first time I was amazed to see the prices of software advertised throughout its pages. I live in London and readily know that a new full-priced game can cost anything up to £38 so when I saw such fantastic games as *The Secret Of Monkey Island*, *Gods* and *PGA Tour Golf* for the incredibly low prices advertised I could not believe my eyes. There must be a catch, surely. How can these companies offer such unbelievable bargains? I am extremely tempted to send off a cheque post haste, but until you can offer some explanation for these 'bargains' it'll stay in my pocket!

Martin Holmes, London

The reason these companies offer such unbelievable value for money is that they do not have the expense or overheads of High Street properties. Rent, especially in London, can be incredibly high and the shops have to get their money back somewhere – hence the higher price for their games. Mail order companies buy in bulk and at dirt cheap prices therefore even when you are saving six or seven ponds per game they are not actually making any less than a shop. Be warned, however, mail order companies are notorious for advertising products they don't actually have, being out of stock or just cashing your cheques and keeping you hanging around for weeks. The best advice is to use the most established ones. Cheapest is not necessarily best.

PD FAN

Since reading your comprehensive demos section I've become hooked on the scene. However, what puzzles me is that with all this 'cheap' software floating around why haven't you snapped some up for your cover disks? Don't misunderstand me I think your disks offer great value for money and are as rewarding as any I've bought, but I've never seen a crew logo or any such monicker attached to any of the programs. I would personally prefer to receive a really grooving rave track that would send my senses racing. Of course, everyone has their own tastes.

Ian Garwood, Woolwich

Just because PD is cheap to buy doesn't mean that it's necessarily cheap to buy outright. In order to get a program on the cover of a magazine you have to buy it lock, stock, and barrel, and actually own it first, an expensive process. CU has bought you some games and utilities from the PD circuit before, but we'd much rather receive contributions from up and coming new talent that hasn't been seen previously, than give you something you could have bought yourself for a couple of pounds from any library.

PAGINATION FRUSTRATION

I've noticed that you are devoting more and more pages towards Public Domain software. The last issue had at least eight pages. Now although I can appreciate that some people are really interested in this type of thing i don't think they are in the majority. At least four of these pages could be reclaimed in the name of software and hardware reviews. Apart from that niggle I really enjoy CU and welcome the new direction in which it is heading.

Steven Burns, Surrey

We don't think you are entirely correct about the proportion of people interested in PD. Already our recent readers survey has indicated that the vast majority of readers are actively involved in buying PD disks. We also believe that the PD scene is a vital ingredient in ensuring that new programmers have an outlet for their material that is not commercial. Imagine if you were a would-be coder and could not find anyone to publish your game/utility, etc. You'd probably get so frustrated you'd give up on the creative aspects of computing and resort to keeping fish! Seriously though, our coverage is not excessive when compared to the huge amount of new disks released each month. As long as there's a need and desire for PD we'll review it.

NEW KID ON THE BLOCK

I am a new Amiga owner and have only just started reading CU Amiga. When I was buying my computer in the shop the assistant informed me that the package did not include a joy stick. Looking around the shop my eyes were drawn towards the ergonomic Quickshot stick. it's a pity I didn't read your joystick round up first as I would have most definitely chosen a morp expensive, yet far superior stick. The one I now own is totally redundant. Although it was relatively cheap i would have expected it to last longer than a month. Anyway I'll be rushing out to buy a Zip Stick as soon as I can, that is if I can pull myself away from my machine.

Simon Forest, Blackthorn

Dan Slingsby compiled our joystick extravaganza and he received many a blister and aching joints whilst testing them out. It seems that everyone likes the Zip Stick, which was reviewed last issue along with 14 others. The Zip Stick is the office choice so far with a vote of 95%. The lowest mark last issue went to the Tortoise with an all time low of 11%. New sticks are coming out all the time and no-one has invented the ideal stick. I'd like to see a stick that absorbs sweat and stays cool to the touch. Dan would like one that protects your hands from blisters. Steve Merrett is happy to stick with a Comp Pro, whilst Steve Keen prefers the Python, and Nick doesn't play enough games to warrant us letting him have one.

NEEDY CD

Please tell me that I haven't made a huge £600 mistake. I've just bought a CDTV and, although I've played *Lemmings* to death, the machine has now become the most expensive white Elephant I've ever bought. Is anything going to come out on this machine or have I wasted my money?

Julian Price, No Address Given



The CDTV, as everyone should know by now, is merely a Compact Disc player linked to an Amiga. The machine itself is no better than a normal 1Mb machine except it can also store enormous amounts of data on its compact disks. It is also audio compatible with conventional CDs, so at the very least your CDTV is in fact a high quality CD player with the added bonus that it is an Amiga as well. To be slightly fair to Commodore, although due to their handling of new products they don't deserve it, the CDTV has been completely let down by software developers. No one is going to release, commission, produce or convert for this machine until sales increase, something that Commodore are desperate to achieve. And in true Catch-22 fashion, nobody in the know is going to buy the machine until the software is there. At the risk of sounding pessimistic, the CDTV is virtually doomed unless the CD ROM drive takes off and initiates the flood of disks urgently needed. But there's another story.

FOOTBALL FOREVER?

It always amazes me that as the years go by we get even more football games. In your May issue you had an extremely interesting round up of the genre, but this is by no means all the games that have been released on the Amiga. I am in two minds on the subject. On the one hand, I regard *Kick Off II* as the finest football game ever and on the other I think that the game is seriously floored and far from the 'best game of our generation' title given to it prematurely by most magazines. I think the only way for me to overcome my frustration is to switch off my television set and go do something less infuriating instead. That is, until the next batch of footy sims are released.

Adrian Hall, Hull

Whilst there's no denying that *KO2* is one of the best two-player games around and undoubtedly the finest football game so far released, we have to agree it is seriously flawed. Sprite detection, especially on the goalie, is terrible and you can end up taking corner kicks against your own goal. Steve Merrett reckons *Striker* is exceptionally good, though. As far as the future of footy games is concerned, there's always room for improvement. Who knows what's around the corner.

WRITE TO CU, 30-32 FARRINGDON LANE, LONDON, EC1R 3AU

get organised

Mat Broomfield continues his step by step guide to SID, one of the best directory utilities available.

PART 2

NEEDFUL THINGS

Last month, we looked at the basic operations of *SID*, and how easy it is to use. However, as each user will have differing requirements of the program, many aspects of it can be customised to suit individual preferences. This month, we'll be looking at how to customise the program using the configuration file.

Provided you're using a proper release version of *SID*, you'll find the configuration file (called SID.Config) in the S directory of the disk. Before you can do anything, you must load it into a text editor or word processor such as *Ed* or *Memacs*. *Memacs* can be found on your Workbench or Workbench Extras disk.

AND TODAY'S WORD IS...

Once the file has loaded, you'll see a list of keywords, followed by their parameters. These keywords represent the things you can change about the program – for example, the keyword Color0 allows the user to change the colour that *SID* uses for the screen background and the window title bar text. It's followed by an equals sign (=) and a number, which represents the colour to be used. Almost every option has a default value, which is built into the program. Providing your configuration (config) file hasn't been modified, the parameters given are exactly the same as the defaults.

When *SID* loads, it automatically searches the S directory for the config file, and overwrites its internal settings with those listed in the file. If an option is not specified, *SID* will revert to its default. For example, if no Color0 command is listed in the config file, the program will assume that you're happy with the standard setting. This means that your customised config file only needs to contain commands whose parameters you wish to change. This saves time when loading.

SIZING IT UP

Let's make our own config file, so that you can see how some of the options work. We'll start by changing the size of the window *SID* opens to display files in. In its default mode, it opens up a full-screen window (640x200 pixels). This screen size is generated by setting the WindowHeight keyword to FULL, one of four possible settings for the screen size. By changing the value of this word to HALF or LACE, the window size will be altered to 640x100 or 640x400 pixels respectively. If you don't want to use one of the predefined sizes, enter the value SPECIFY as the WindowHeight parameter. This allows you to specify the height in rows, up to a maximum of twenty-two using another keyword called SpecifyRows. Therefore, to set the height of the window to eleven rows you would type the following:

```
WindowHeight = SPECIFY
SpecifyRows = 11
```

STRANGE DEVICES

Now that the window size has been changed, it's time to customise the device buttons so that they call up the directories we want, rather than the presets. To do this, specify the alternate path names for each button using the BUTTON# keyword. Let's assume that you don't have a third external disk drive, so the fourth button labelled DF3 is useless to you. However, you frequently access files in your devs directory and would prefer a quick way of jumping straight to it. Just type the following entry in the config file – BUTTON4=DF0:devs. Now, whenever you click the fourth button, you'll be taken directly to the devs directory of whatever disk is in the internal drive (DF0).

Of course, it's all fine and dandy reassigning the way the buttons work, but it'll be damn confusing if you don't relabel the buttons to indicate their new function, too. For that, we use the DeviceButtons keyword. There are eight device buttons, each of which has a title three characters long. Assuming we don't change the function of any other buttons, the correct entry would look like this:

```
DeviceButtons = DF0DF1DF2DEVR
AMRADFH0DH1VOLDIR
```

The characters after the equals sign represent the labels for each of the eight buttons in order, with no spaces between them. I've also shortened devs to DEV because of that three character limit to device button names.

CONCLUSION

The *SID* configuration file can contain roughly one hundred different keywords, each with user-definable parameters. However, as most people will only need to modify a few of them, I'll leave you to research the complete list at your leisure. All official release disks contain configuration documents that go into more detail about the keywords. You can buy a copy of *SID 1.6* for £2.50 including P&P from Valley PD, PO Box 15, Peterlee, Co Durham, SR8 1NZ. Incidentally, *SID* is a shareware program, which means that it can be freely copied without having to pay a fee. However, if you plan to continue using the program you should send the author a $25 registration fee which also entitles you to additional upgrades. It's currently estimated that only one in every 200 copies of *SID* are registered, thus depriving Timm Martin of hundreds of well-earned pounds.

THE BEST JUST GOT BETTER

SID started out in October 1988 as little more than a programming exercise for college student Timm Martin. After releasing version 0.49 in 1989, the response to the program was good enough to justify developing it further.

After creating numerous modifications, Timm decided to create the 'ultimate' directory utility and started work on SID2. Having just released a preview version, Timm was struck down for two months by serious illness, and he was mortified to see that Directory Opus was released during that time. The program was so close in specifications to Timm's own creation, that many people assumed that they were in fact one and the same thing. Nevertheless, Timm persevered with his own creation, and the results speak for themselves.

SID2 will be available by June and it's every bit as good as one might have hoped. Of course, it's still fully configurable; more so than ever in fact. It gives you an infinite number of programmable buttons, letting you access any program from its ultra user-friendly interface. Without any doubt, it lives up to Timm's aspirations for it truly is 'the ultimate directory utility'.

FLEXIBLE FRIEND

There are many times when *SID* loads independant programs to perform particular functions. For example, whenever you select edit, a text editor is loaded; select show and a picture viewer is called up. The beauty of this system is that you can substitute your own programs for the defaults, so if you prefer *Cygnus Ed* as your text editor you can tell *SID* to load it whenever you select EDIT.

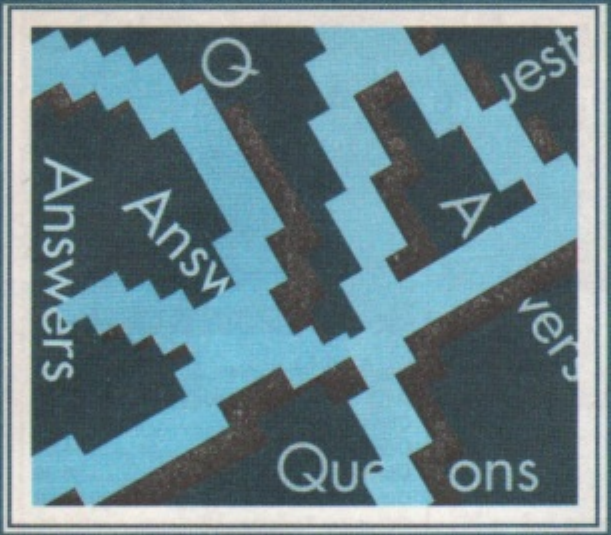
To change the text editor, you need to use the FileEdit keyword so it gives the name and path of your replacement editor. Let's assume that you use *Cygnus* and it's on a disk called Utils, simply add the following line to the config file to use it:

FileEdit=UTILS:Cygnus

There are a number of other commands which can be changed in exactly the same way. Here's a list, complete with their function:

Calculator This loads up a calculator program and defaults to c:calculator.
FileXEdit This loads up a hex editor and uses C:newzap as its default.
Hear The sound sample replay program to be used. C:hear is the default.
Preferences The path name of the preferences file to be used.
Print This specifies the name and path of the program to be used for printing ASCII (text) files.
NewCLI This indicates the location and way that a new CLI window will be opened.

In addition to the above keyword definitions, you can also specify up to five different archivers, and the archival method used. However, as that's a little bit specialised, I'll leave you to research them for yourself if you need them.



Mat Broomfield offers more cool answers to your burning technical questions.

STARTREKKER VS OCTAMED

I have a PD *Soundtracker*-style program called *Startrekker* (v1.3). Not only does it offer a standard four-track mode, but it also allows the use of eight tracks at once. It seems that high-quality samples suffer slight dulling in reproduction, but low quality ones are completely glitched over. Anyway, to get to the point, I'm wondering whether *OctaMed* is the same, and does it lose any sound quality in eight-track mode? Please assist as I'm contemplating buying it and I don't want to waste my precious money.

Marcus Baw, Hambleton, N.Yorks

***OctaMed* suffers from exactly the same problem, as do ALL eight-track music packages. To play that many tracks at a time, the program halves the rate of the samples (and their quality at the same time). Despite this, though, *OctaMed* is a great program, and is well worth the asking price. However, *Oktalyser* is the best program for eight-track use, and can be bought from 17 Bit Software, 1st Floor offices, 2/8 Market Street, Wakefield, West Yorks, WF1 1DH.**

COLOUR SCANNERS?

I would like to grab colour images, but Digiview Gold and a video camera will cost a packet. Is it possible to colourise black and white or grey scale images from a cheaper hand-held scanner? Apart from the expensive Sharp flatbed scanners, is there a colour hand-held that will do the job?

Mark Smith, Moor Lane, Liverpool

The cheaper grey scale scanners save images in sixteen shades of grey. These IFF pictures can then be loaded into *DPaint* and coloured by hand. Unfortunately, there isn't any hardware available which will automatically do the job for you.

Pandaal Marketing are apparently in the final stages of producing a colour hand scanner which should be released within the next three or four months. No price has been fixed, but £250 seems likely. Contact Pandaal at 44 Singer Way, Kempston, Bedford, MK42 7AS. Tel: 0234 855666.

Alternatively, you could buy the Rombo Complete Colour Solution Digitising Kit and a monochrome security-type camera for about £!230 in total. This would then let you digitise books, video tapes and real scenes. Contact Rombo at Baird Road, Livingstone, Scotland, EH54 7AZ. Tel: 0506 466601.

COMPUTER CRAFTS

I run a small handicrafts business and I was wondering if there was any way I could use my Amiga to help me design my knitting patterns. I've tried using *DPaint*, and that's fine for working out pictures, but I was hoping that there might be something a little more specific?

Lorna Palmer, Shephards Bush, London

I don't know if it's what you're looking for, but there is a Licenceware program called *X-Stitch* which lets you design cross stitch patterns, and can be used with some types of knitting. You can buy it from Deja Vu, 7 Hollingbrook, Beech Hill, Wigan, WN6 7SG. Tel: 0942 495261.

You might also be interested to know about an American product called the *Bit Knitter*. It's an electronic knitting machine interface that lets you link *DPaint* and automatically create your designs in wool. At roughly £350 pounds it's not cheap, but if you're using it commercially it'll be worth it.

Find out more by writing to Cochenille Computer Knit Products Inc, PO Box 4276, Encinitas, CA 92024, USA. Tel: 0101 619 942 1957.

FLASHING CAPS LOCK HELP

I read Thomas O'Neill's letter in the Feb issue, who was reporting problems with his Caps Lock light. I have an Amiga which has had the same problem since the day I bought it four years ago. I found that on turning my Amiga off and back on again a few seconds later, the light would start blinking. To avoid this, I have to leave the computer switched off for at least a few minutes. This is clearly not caused by a virus, but as it's never affected my Amiga's performance, I don't think that it's worth repairing either.

Marko Berg, Seinajoki, Finland

I phoned James Harrison at Commodore technical help to find out more about the problem, and he expressed great surprise that your Amiga has lasted as long as it has. The problem is apparently caused by a faulty keyboard processor chip, and can eventually lead to the keyboard permanently locking up. How you respond to the problem depends on whether you value money or a working and reliable Amiga. Personally, I'd get the problem fixed before it becomes a necessity.

CANON DRIVER

In the February issue, you reviewed the Star SJ-48. During the review, you compared two pictures, one from the SJ-48, and the other from the Canon BJ-10e. How did you manage to print the picture on the Canon? I own one, but have had very little success when printing graphics. Whenever I try, the picture is broken up at regular intervals by a blank horizontal space. Also, when I print letters, the BJ-10e always prints two fives at the top of the page.

What driver are you using, and where can I get one from?

R.G.Ruthven, Reydon, Suffolk

All your problems are caused because you're using the wrong driver. Anyone who wants the correct driver, can find it on this month's coverdisk.

MEMORY ADAPTATIONS

I recently decided to fit my Amiga with a larger memory expansion than the half megabyte board I had already fitted. I decided on the Virgo 1.5Mb expansion, and, after fitting it, I found that my total memory had increased to 2088696 bytes. So far, so good. I noticed that it was also possible to fit another four chips to the board, so I removed the four memory chips from my old A501 expansion and fitted them. When I rechecked, the total memory had fallen to little more than half a meg, as if there was no expansion fitted.

Could you tell me why this is the case, and if there's any way I can use my old chips to increase the capacity of the board to 2Mb (giving me a total of 2.5Mb)?

Also, there's a wire which links the Gary chip to JP2 which is not connected at present. Should it be there?

S. Rock, Lancaster Road, Essex

There are many types of memory chips available, and they vary in speed, capacity, and address mode (the way that information is stored in them). These chips are not always interchangable, and I suspect that the chips from your old A501 board are

not compatible with the new board. Chips are also extremely sensitive to static electricity, and if you didn't earth yourself properly before attempting the installation, it's possible you may have damaged them. It's also possible that the board wasn't supposed to accept additional chips – even though there's space for them. It may be that the board was designed to accept either the chips that are in it, or smaller capacity ones, which would occupy more space.

As for the loose wire, if you have a fatter Agnus chip in your Amiga, the wire can be used as part of an advanced installation to give you 1Mb of Chip RAM. However, as the installation also involves cutting one of the tracks on the Amiga circuit board, I suggest you don't attempt it without instructions from the board's manufacturer. Contact Virgo for more information on your problems.

RETURN OF THE RAM

I own a Pro-RAM board, which WTS will upgrade so I can increase my machine's Chip RAM. How will this help me and why? Also, what does IFF stand for? Does it only apply to pictures and is it IBM PC compatible?

Finally, if I use a Scart plug, will it produce better pictures than my modulator in hi-res and interlace modes?

Christian Downton, Cross Hill, S. Yorks

Extra Chip RAM increases the speed and power of both the graphics and sound handling abilities of the Amiga. For games, this won't make a lot of difference, but for animations, music, or creating sound samples, the improvement is drastic.

IFF stands for Interchange File Format, and is a format which was created in the Amiga's early days as an attempt to standardise the way data is stored. The two most common types of IFF files are graphics, known as ILBM, (InterLeaved Bitmap), and sound samples known as 8SVX. There are also IFF formats for animation, music, 24-bit pictures, etc. Some IFF files can be converted to run on an IBM PC, but most programs and games are not compatible.

Finally, yes, a Scart lead will improve the appearance and sharpness of Amiga graphics in all screen modes.

UNKNOWN VIRUS VEXER

Having loaded the Terminator virus killer, I put my Workbench disk into DF0: and was shocked to see the program report that there was an unknown virus on the disk. The killer program suggested that I send the disk to its authors so that they could kill it, but when I checked the disk again, the virus wasn't detected.

None of my other virus killers detect anything on the disk, but what makes me particularly worried is the fact that the disk has the write protect tab missing, and has remained protected since the day I got it. If the disk is infected, it can only mean that it came from Commodore themselves.

David McGlynn, Winsford, Cheshire

Some virus killers report any unfamiliar files as viruses. This can be misleading as there are many legitimate programs which can cause this message to appear. Personally, I tend to trust the reliable *Virus Checker 5.40* and *Master Virus Killer 2.2* utilities.

There are unscrupulous programmers who try to cash in on people's virus fears, and it sounds as if this may be such a case. By reporting a nonexistent virus, and suggesting you send your disks to them, they acquire lots of disks with little effort.

LEARNING JAPANESE

I've been learning Japanese, and I'm looking for software to write in the language. I wrote to Commodore but they weren't much help, offering one expensive American import which requires a PC emulator. Your article in the April issue, ('Turning Japanese') lead me to think that you might be able to help via some of your American contacts. Someone told me that Word Perfect Corp could help, but I have no idea of their address.

Euryn Dyfed, Pen-Bre, Wales

Word Perfect have just released a new Japanese word processor in the States at a cost of $695! It's only runs on PC compatibles, and there's absolutely no likelihood of it being converted to the Amiga.

As the Japanese alphabet comprises over 7000 characters, it's unlikely that you'll ever find a package fulfilling your requirements, but there is an American software package which claims to teach both written and spoken Japanese. It includes customised fonts, and is probably the closest you'll get. It's called *Japanese 1*, and costs $49.95 (about £35). You can find out more details by writing to; Education Tutorial Software, 10811 Ashton Ave, Ste. 209, Los Angeles, CA 90024, USA. Tel: 0101 213 470 6205.

As a final option, it's possible to buy Adobe Japanese fonts for your laser printer (if you have one) from Font Works UK, 65-69 East Road, London, N1 6AH. Tewl: 071 490 5390.

DIRECTORY PRINTING

How do I get a print-out of the contents of a directory?

Euryn Dyfed, Pen-Bre, Wales

Open a CLI window and type:

LIST to PRT: directoryname <return>

Put the name of the directory to be printed where I've written directoryname.

HOW TO WRITE GAMES

I've owned an Amiga for ages, but I'd like to do more than play games - basically, I want to write them! I'd like to write a football game with decent graphics, using sprites, but the only language I know is Pascal. Is this suitable, or will I need to learn C?

Also, I'd like to get better quality out of my Star LC-200 colour printer than I currently do using Kind Words 2. Ideally, I'd like a Public Domain Desk-Top Publishing package. Any suggestions? Finally, I'm considering buying an ink jet printer such as the Star SJ-48 or Canon BJ10-ex. Do you think that this would be a wise move? How do ink jet printers compare with laser printers, not that I would buy a laser, I just know what their quality's like.

John Miller, Kilbarchan, Scotland

I don't know Pascal very well, but it's certainly not designed to handle games or move large blocks of graphics and sound data around quickly. You could write a strategy game with it, but that's about it. If you want to learn something quickly, why not take a look at *AMOS* basic. It's not as powerful as C or Machine code, but it's easier to learn, and cheaper to buy.

As for DTP software, there is a rudimentary package available called *Amiga Fox*, but 17 Bit software are awaiting delivery of a brand new system which looks extremely impressive. Watch PD utilities for an update.

I think that buying an ink jet printer (a bubble jet, actually), such as one of the ones you've named is a great idea for most applications. But colour printing, although of excellent quality, requires an awful lot of hard work.

Although the printers have a higher resolution than many laser printers, this is not apparent in their output which is paler and rougher than their hi-tech siblings. Nevertheless, they are equivalent to owning a 48 or 64-pin printer, resulting in crisp text, and professional-looking graphics.

COLLEGE COMPUTERS

I'm starting college soon and the course I'm taking relies on IBM PCs, therefore I have a couple of related questions. Are Amiga PC emulators any good, and if

ADVERTISER INDEX

TO ADVERTISE IN C U AMIGA CALL TOM, KAREN, OR MICHELLE ON ....071 972 -6700.

so how much do they cost, and which are the best ones? How compatible are they with PC software?

I'm also thinking of buying an accelerator board to increase my Amiga's processing speed. Will I need to fit it myself? Also, what are the advantages of an accelerator and how much do they cost? Is it cheaper to buy a PC, or upgrade to an A1500 or A2000 as I've heard that they're PC compatible? Finally, is it a good idea to buy a hard drive? If so, which?

Masud Hassan, Tanerdy, Dyfed

To answer your questions in reverse order: yes it's a very good idea to buy a hard drive, provided that your needs warrant one – if you just play games, there's not much point. At the risk of sounding like an advert for GVP, their Impact series 2 for the A500 is excellent and will cost you between £300-£350. You can also add an accelerator and a PC emulator directly to the drive, thus protecting the warranty of your A500.

The A1500 and A2000 don't come with PC emulators built-in, they're optional extras, and as you can now buy PCs for as little as £500, it would be cheaper to do that. Accelerators will increase the rate at which the Amiga performs. With an optional maths co-processor fitted, they're especially useful for DTP, graphics, rendering and fractal work, although they have many other applications, too. They range in price from hundreds to thousands of pounds. Phone Solid State Leisure on 0933 650677 for more info.

Most PC emulators only emulate bottom of the range 286 PCs, and therefore won't allow you to run software requiring higher specifications or add-on cards.

KICKSTART RIP-OFF

Last week, I took a walk in Tottenham Court Road to find out if the Kickstart 2.4 ROM chip and Workbench disk is available. In one shop I was told that it would cost £!440 to upgrade my A1500. The salesman reckons the Plus has a new Super-Denise chip costing £250, and the new Kickstart ROM costs £90. If I wanted to adapt it to use 2Mb of Chip RAM, it would cost me another £100, and that doesn't even include the RAM. What a rip off!!!

Am I really going to be better off selling my A1500 and buying a Plus? Should I just sell up and buy a PC?

Stephen Memery, London

What a rip off indeed! Assuming the salesman didn't just make an honest mistake, he's either a git, or an idiot! Commodore's recommended retail on the new Kickstart kit is £79.95, and you can buy it for much less if you hunt around. True, you will have to buy some additional chips to perform a complete upgrade, but they won't even cost you another £80 let alone £440.

Of course you're not better off selling your A1500. Just Phone Silica Systems on 081 309 1111 and you can fit your new Kickstart within days.

DRIVE CLICK

When I load a program from Workbench, the external drive clicks every 3-4 seconds. If I remove the program disks, the internal drive does it, too. It's not that I mind the noise, but it's driving me crazy thinking my computer might be faulty. What are the drives doing, and why?

Ciaran Thomas, Stevenage

The drives are checking to see if a disk is present because Amiga DOS keeps track of which disks are in which drives all the time. If you insert a DOS disk in each drive, the noise will stop, Alternatively, buy an anti-click switch or its software equivalent to stop the problem.

WHAT CAD

Which is the best Computer Aided Design package available for the Amiga? I run a local estate agency, and I need something powerful that I can link up to my HPGL plotter to produce floor plans for prospective clients.

Martin Wynes, Torquay, Devon

***X-Cad Pro* is recognised as the best Amiga CAD package available. According to Which Magazine, it's even better than the industry-standard PC package *Autocad*. Unfortunately, it requires 3Mb of memory to use. To be honest though, it sounds a bit like using a tank to catch a mouse. If you're simply drawing floor plans, couldn't you use *DPaint*? It would be much quicker, and easier to use, although you wouldn't be taking full advantage of your plotter.**

ANIMATED ASKER

I'm trying to produce a short animated demo using my A500, but I keep running out of memory despite my 1Mb upgrade. How do people like Tobias Richter create animations that last for ages, when less than fifty frames completely fills my expanded memory?

Is it possible to do animation using the 24-bit systems, such as *Harlequin* and *Impulse*? If you can, what additional stuff would I need apart from my Amiga and the hardware?

Mal Dewes, Stevenage, Herts

1Mb is not a lot of memory for animation, and can easily be filled with twenty frames. There are two main factors influencing the amount of space that they occupy; their screen resolution, and colour mode. Assuming you're using *DPaint*, it only stores the differences between consecutive frames, rather than the entire image. This means that if every single pixel on the screen changes colour from one frame to the next, the maximum amount of memory will be used up. Try using a palette with less colours (eight or sixteen, for example).

Having said that, not all animators use page flipping as a way of creating movement – some overlay sprites and bobs (small graphics) over a background screen. These graphics can be freely moved around the screen without having to store each movement as a separate frame, thus saving loads of memory. A package such as *The Director* will allow you to create this type of animation easily. You can buy *The Director* from HB Marketing, Unit 3, Poyle 14, Newlands Road, Colnbrook, Slough, SL3 0DX. Tel: 0753 686000.

You can use 24-bit boards for animation, but viery few are compatible with the A500. Furthermore, as 24-bit images can occupy over 1.5Mb each, it's not practical to animate them from memory, so they need to be recorded straight to video tape to be effective.

OOPS CORNER

A couple of months ago, I referred to Commodore's new CD Rom drive as the A590, which was wrong. The A590 is, of course, the name of their hard drive. The CD ROM drive will be called the A570 (formerly the A690), and according to Commodore at the ECTS show, it'll be available by about June and will cost £299.99.

Well, that's it for another month. Hope you found something useful. The mail bag was devoid of tips this month, so get your thoughts together and share some pearls of wisdom with your fellow readers. Write to Q&A, CU Amiga, Priory Court, 30-32 Farringdon Lane, London, EC1R 3AU.

MIDI MED

I've just been given a MIDI keyboard and interface. Until now, I've been using *OctaMED* for creating music using the Amiga's internal sounds, but I'm now on the hunt for a decent budget-priced MIDI package. Do you have any recommendations?

Stuart Mitchell, Brixton

There are lots of dedicated MIDI packages for the Amiga, ranging from *Dr T's KCS* before moving down the range to *Music X* and *Sequencer One*. Personally, I still prefer to use *OctaMED* because of its sheer ease of use. If you are intending to create music professionally, *Dr T's* is undoubtedly the most comprehensive package available.

ANY PROBLEMS?

If you have any questions of a remotely technical nature, we'll do our best to answer them. Send your letters to: Q&A, CU Amiga, Priory Court, 30-32 Farringdon Lane, London EC1R 3AU.

sound check

What's new on the Amiga sound stage? Tony Horgan lends us his backstage pass in the first of a regular series...

AUDIO ENGINEER PLUS

WHITER THAN WHITE

'Those in the know, choose Fairy Snow,' so the washing powder ads would have us believe. In fact, laboratory tests have proven that past releases of *Audio Engineer* are far more effective at sound sampling than the aforementioned soapflakes. Now prepare yourself for the new improved *Audio Engineer Plus*, with its revolutionary 'fat digester'. But will it shift Ribena stains at 40 degrees? First the facts: The *Audio Engineer Plus* package is a combination of hardware and software – Audio Imager (the hardware), and *Audio Engineer* (aka *Audio Master*).

SO HARD

Unlike most sampling hardware, which hangs awkwardly out of the Amiga's printer port, Imager comes with a short connecting cable, so you can plonk it on top of your A500 or alongside the machine if you have a 2000 or 1500. This is very handy as you then have easy access to the unit's dual line/mic switches, and the two input volume controls. The inputs themselves offer a choice of stereo or mono, with one pair of mini-jack sockets on the front panel, and stereo phono sockets at the rear. Very snazzy it looks, too, with loads of knobs, switches, and shiny panels. Flicking switches and tweaking knobs is all very entertaining, but it's much more fun once you've turned the thing on, and booted up the software.

CU AMIGA TOP RATED

THE SOFT PART

Since the release of Audition 4, it has looked as if Ramscan's *Audio Engineer* might lose its title of THE best Amiga sampler. *Audition 4* equalled *Engineer* in most departments, and even surpassed it in others, but this seems to have fuelled Ramscan's ambitions.

Getting started couldn't be simpler. Depending on the amount of available memory, *Engineer* sets aside a generous workspace for your incoming sound. After adjusting the volume of your sound source with the help of the oscilloscope, you're away. Once you've grabbed your sound, you can get to work editing it with the massive range of options.

Cutting and pasting is a simple affair, but it's now made a bit more attractive thanks to the animated 'zoom' function. Instead of just redrawing a magnified version of the sample (which can be quite disorientating), the waveform is expanded in a nice smooth fashion, so you can keep track of where you are in the sound. Chopping up your sample and setting loops is all very easily done, but then that could be said of most sample editors. What sets *Engineer* apart from the rest, is what it lets you do to your neatly cropped sounds.

If you don't fancy fathoming out the workings of a sequencer or *Soundtracker*, you can still put together some modest tunes with *Engineer*'s multiple loop feature. Load up a number of samples – an intro bar, for instance – with a verse loop, a chorus loop and maybe a crash cymbal to round it off. Shunt them all together in the edit window, and you could set up a sequence of loops to play four bars of the intro, your verse and chorus a few times each, and then set the crash cymbal to play once at the end. You don't get anywhere near the amount of freedom you would with a tracker program, but it could come in handy for animation soundtracks, or low-tech demos.

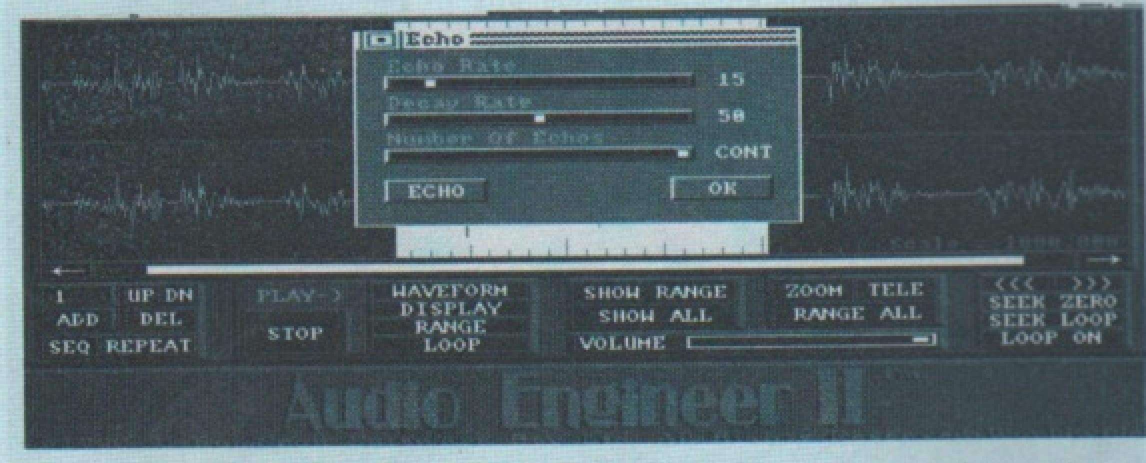
TIME-STRETCHING AND PITCH-SHIFTING

At last it's arrived! A time-stretch/pitch-shift feature for the Amiga. So what is this stretchmark-shifting thing? Have you ever tried mixing two different records together? If so, you probably had trouble with the timing at one stage or another. Imagine you've got a breakbeat running at 120 bpm, and a vocal that runs at 124 bpm. It doesn't take a genius to realise that the two aren't going to run in time. One option is to try playing the vocal a semitone lower, thus slowing it down, but it's unlikely that the two will be any better synchronised. What's more, you'll have put the vocal into a different key, so it won't match your bassline and chords, etc.

The time-stretcher/pitch-shifter overcomes this problem by altering a sound's duration, without changing its pitch. Likewise, you can change the sound's pitch and keep its original duration. Take a sample too far from its original pitch and length, and side effects tend to creep in (if you try to up the tempo of the classic Soul II Soul beat to run at rave speed, for example), but generally there's no audible drop in sound quality. I don't know how I ever got by without it.

Glancing a little further down the Effects menu, you'll come across the mix/flange function. This is another excellent tool which can turn an average sample into a killer sample. Used simply as a mixing tool, you can pile one sample on top of another to create some brilliant new sounds. Take a beefy resonant bass sound, mix it with the 'attack' of a cutting synth sound, and you've got a sample with more punch than Mike Tyson. Alternatively, you can use the same function for a completely differ-

ADDRESS BOOK
Audio Engineer Plus retails for £204.30 and is available from HB Marketing, Concorde Building, Unit 3, Doyle 14, Colnbrook, Berks. SL3 0OX. Or ring them on (0753) 686000.



***Audio Engineer Plus* is extremely easy to use. Everything is icon and slide bar controlled and quick to effect. All the usual effects can be added, including echos, decay rate and looping.**



SOUND CHECK
. . . a t a g l a n c e

Audio Engineer Plus - At A Glance
* A good all-rounder * Not cheap * Extremely flexible * Simple to use * The best of its kind

ent effect. Copy your sample, mix it back onto itself, but this time with some 'flange'. Eventually, you'll get two versions of the same sample, which run slightly out of phase. This adds a lovely wave-type effect to the sound. U2 used a variation of it on the main vocal from The Fly, and you'll often hear it on drum rolls. It's one of those effects that seems to sound good on just about anything.

ECHO (ECHO, ECHO, ECHO...)

Echoes are similarly easily added, and come in very handy at times. If your sample lacks a proper 'decay', a little echo will make it far less abrupt. Take the echo rate right down, and you'll create a Robocop-style speech effect, perfect for those deep and booming demo intros.

Yet another new feature can be found lurking behind the Filter option. Using the two sliders, you can specify a range of frequencies to be boosted or cut, and a third slider gives control over the degree of your boost or cut. What's more, you can pass a defined range of frequencies through the filter, and, for example, completely eliminate a bassline from a sampled loop. Likewise, you could remove all the high frequencies or any band between.

By way of a bonus, you can also use *Engineer* as a real-time stereo effects processor. Variable echoes and delays, flanges and pitch-shifts can be put onto any sound that passes through the sampler. Because the real-time effects completely take over the machine, you can't use them directly in conjunction with *Engineer*'s other functions or a tracker program. However, if you have a four-track tape deck, you could run one or two tracks through the effects at the final mixdown stage. Then again you could use the effects for live overdubs, or even just for fun!

So it's official: *Audio Engineer Plus* has reclaimed its crown. It's not cheap, but I suppose that's the price of innovation. In short, it's the new King of the castle.

RAMSCAN £204.30	
Expensive, but definitely worth the outlay...	
EASE OF USE	88%
VALUE FOR MONEY	66%
EFFECTIVENESS	92%
FLEXIBILITY	95%
INNOVATION	96%
OVERALL	**94%**

NEXT MONTH

We take another look at the many synths currently doing the rounds, and bring you up to date on what's happening on the music front...

The MIDI Music Show

Hey, This Has Got A Good Beat...

If you're thinking of splashing out on a synth or drum machine, the massive range of kit on offer can be very confusing. Synth manufacturers seemed to give up naming their products with half sensible titles years ago. These days everything is known by some obscure alpha-numeric tag, that probably has some relevance to the boffins who design the things, but just leaves the rest of us with a headful of numbers. This is where the MIDI Music Show (held over April 23-25) comes into its own. Most of the big guns turned out, including Roland, Yamaha, Akai, and newcomers to the synth market, Peavy.

Let's start with Roland – who really know how to get the juices flowing. Although it was released a year ago, their JD-800 was still the centre of attention, and rightly so. This is a beast of a synth, with a massive panel of knobs and sliders which replace the standard multi-function buttons of most synths. As for the sounds, you just wouldn't believe the things it pumps out. With patches like 'Warp-drive Martian Space Choir', you could almost cut a whole ambient house track by holding a single note for three and a half minutes! If you ever get the chance to try out a JD-800, pass up the opportunity on absolutely no account.

JV BUNNY

Rather overshadowed by their big brother were Roland's new JV-30 and JV-80. Although not offering knobs and sliders, they're both very capable instruments, and adher to the General MIDI standard. This is a revision of the MIDI 'rule book', which says that certain sounds should be given certain preset numbers. The idea is that a MIDI file created with a General MIDI synth, would be compatible with any other General MIDI synth, without the end user having to match the right sounds to MIDI channels.

Yamaha had a new addition to their SY range on show. The SY-35 seems to be aimed at the entry-level user, but, despite its slightly unprofessional styling, has a host of fancy features, including sampled and FM synthesised sounds, 16 different effects, and a couple of drum kits.

I can't say I was bowled over by Peavy's rather ordinary, derivative synths, but then they've only branched out into the synth market very recently, so maybe we'll see better things from them yet.

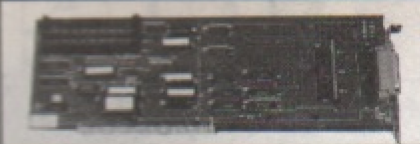
The upsurge in sample CDs was evident at the show. Ed Stratton's Zero G Datafiles were out in force, on both CD and Amiga floppy formats. Riding over the cacophony of exhibitors was another CD, this time from The Dangerous CD Company. You're sure to be hearing some of their irresistibly danceable breakbeats in the clubs and charts over the coming months.

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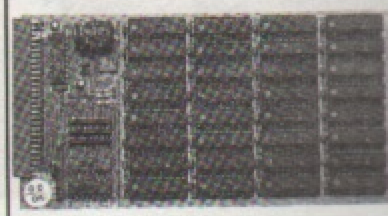
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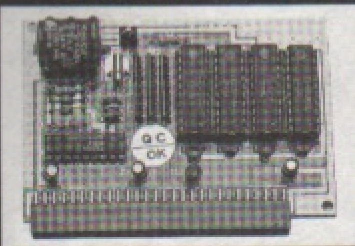
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The CP10 Pal encoder is a device that allows you to store all images onto video tape in three formats, composite video, HI 8 and S-VHS. Just imagine all your presentation from your favourite graphic software, business graphics, charts and even desktop publishing pages are all acceptable material. With the CP10 you can simply record these onto video tape as you create them without any quality loss. **Only £149.99**

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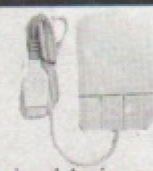


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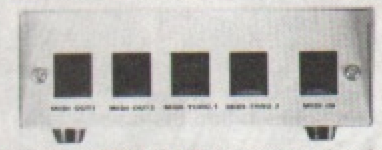
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High quality MIDI interface connects directly with the Amiga serial port. One MIDI in, two MIDI out and thru. Only £24.99

Electronic Design Genlock



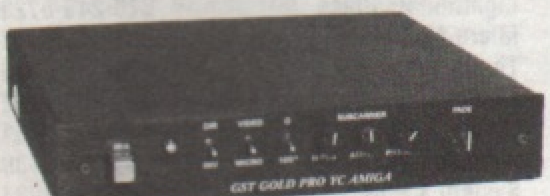
Built in high performance Phillips pal encoder enable perfect video fades. External colour, contrast and limminance controls allow total control to enhance video input. The built in RGB splitter allows digitised images to be grabbed from camera or recorder and fed through the genlock. Key inverter allows foreground and background to be switched in and out. Full superimposing with keyhole effect. **PAL Genlock £349.99** Also available to support **Hi-8, S-VHS £449.99**

Supra 500XP Hard Drive



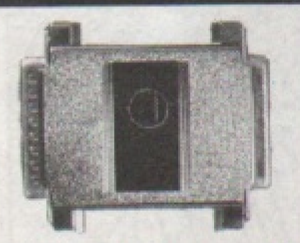
High performance SCSI hard drive offering all the features and performance you would expect from a Supra product. Support of upto 9 megabytes of ram. Low profile 11ms zero noise hard drive. Small compact side fitting drive. Performance that leaves all competitors in the dark age. Bus pass through the SCSI out. External SCSI address selector. Superb software with auto format and backup software.
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High performance S-VHS genlock with built in fader, key inverter. Studio quality results from a unit that has no competition at its price. Used by the French television studios and gives breathtaking quality at VHS + S-VHS level. Fully modular so that frame freeze and multi colour keying through chroma keys can be added. Total control use the video with colour, contrast and luminance. Built in RGB spliiter. £649.99

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Super-Card Ami II is a hardware and software backup system that plugs into your Amiga's disk drive port. Features include:–
Fast DOS copies: copy in Amiga Dos disk in 45 seconds
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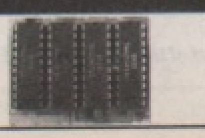
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256K × 4 DRAMS £4.99
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under the bau

Now we know what comms is all about, Dave Burns looks at the difference between the two systems available: Scrolling and Viewdata.

PART 2

PRETTY PICS

A Viewdata board, such as Prestel and Telecom Gold, is not dissimilar to Teletext in appearance. The settings are 7E1, and it is only possible to log on at 1200/75 – ie. 1200 to receive, and 75 to send. It's difficult to upload and download from a viewdata board without specialist software, and these boards are very rarely networking. Granted, there is the bonus of full-colour screens whilst you are 'On Line', but these are at best blocky and unimpressive.

A Scrolling board is 8N1, and are often networked to other boards – even across worldwide systems. This means that a message you leave on one

RECOMMENDED BOARDS

All the following boards have networking facilities, so everything you leave on them will also appear on the other boards in this list. Should you wish to contact CU via your Modem, leave a message on any of these boards and we'll pick it up at the Hotel.

Lightfinders Place	020-248-5723
Micro-Mola	081-316-7402
The Penthouse	071-930-3903
Sheffield Alt. Solution	074-232-5232
Track 83	095-385-1351
STealth BBS	053-255-7739
System X BBS	090-461-2934
The Laser Dome BBS	027-258-4352
InterNet	029-639-5935
The Hotel BBS	063-483-1389
The Tavern	081-445-6514
Maverick Deviation	067-081-3603
The Games Machine	027-460-6670
Fortress BBS	081-317-3158
Reachout CBBS	027-058-3278
Sanitarium BBS	048-040-3375
Quantum BBS	021-707-0681

The following UK boards are part of the Worldwide FNET Network.

d walk

WHAT IS 'NETWORKING?

I have mentioned networking, but what exactly is it? A networked Bulletin board has an area known as an 'Echo' which is shared with the other boards in the network. On entering a message in the networked area, during the night the board you have logged onto will call another board. When the two have established a connection, they will exchange all the new messages in the networked area with each other. This goes on all over the world, earning BT an absolute packet whilst simultaneously passing your words of wisdom to Bulletin Board users worldwide. Some of the networks available in the UK are as follows:

FNET is a strictly Turbo ST Bulletin Board network, and is also a worldwide network.

FIDONET is one of the largest networks with over 16,000 bulletin boards taking echos from this network worldwide. Subjects cover anything from General chat to bible discussions. The Amiga area from Fido is one of the widest used and read Amiga discussion areas.

NEST is another ST only network, but it does carry some interesting topics.

Networking is a lot of extra work and expense for the Sysop of a bulletin board, so when using networked areas please remember that your message to a friend will be read worldwide. Try to make the content of interest to other readers, who may not all have had the good taste to invest in an Amiga.

board can often appear on boards worldwide within a few days.

The most popular machines for Bulletin boards are the ST and PCs, but any computer can call virtually any board and link up quite happily. Often there are areas for software downloading and uploading for many types of computer as the program is stored in Binary form and these are converted to a language your computer can understand.

Let's have a look at some boards and find out what we can expect. The first is the Hotel, and is based in Rochester in Kent. You can log on to this board at all speeds, and the Sysop (System Operator), Kit Watson, will make you most welcome. This is a scrolling board, so you will need to set your unit at 8N1. Once you have entered the hotel, there are dozens of areas to explore, including message areas, bulletins, and databases, as well as the software areas. On the messaging side, there are many areas for such subjects as DTP, American Football, Australian link, Star Trek, Worldwide, Sports (WWF), Books and reading, General Gossip, an Adventure Helpline – an exhaustive supply indeed. Nobody will want to read every area, so a facility is included to switch areas on and off. If there is a subject or area you would like to see covered, then Kit will be only too pleased to sort it out. In addition, Hotel is networked to boards worldwide via Fidonet, NeST, Mysticnet and Clari-Net, and is open 24 hours a day from Monday to Saturday.

BATH TIME

Bath is the home of the Bath BBS which currently runs on an ST with a PC board opening soon. There is a subscription of £10.00 a year for full registration, and it is claimed that this is one of the leading UK BBs – in my opinion, though, this is only because the Sysop has allied with a certain well-known publishing house. There are no networking facilities, but because it's a two-line board, it's possible to have a 'Live' chat to whoever is on the other line at the time. This board will cater for the three major machines (ST, Amiga and PC), but the ST takes precedence as the system is run from one.

0277 233354 is the number needed for Mark Kidd who runs Essex Amiga, using *TransAmiga* software. This is a board totally dedicated to Amiga, and judging by the massive user list, is an extremely popular board. Logging on for the first time is quick and painless, and the rest of the initialising sequence is dependant on whether you like the board. This I liked as there is nothing more infuriating than running up a large phone bill filling in endless questions, only to find that you do not like the board when you do eventually get on to it. There are 35 different file areas covering all aspects of Amiga computing from games and demos through to serious applications, and seven separate on-line text adventure-style games. When you select the message option from the main menu, you will only find five to choose from: General chat, European Amiga chat, UK Amiga chat, private messages to other users and sales/wants. All these areas are well used and popular.

User verification is generally performed over the following days, with further priveleges given to visiting Sysops. This board is also the UK support board for TransAmiga Sysops, so if you have ever thought of setting up a board yourself, Mark is a very good man to talk to. He can also provide you with the software needed.

One thing I did notice is the lack of an off-line reader option. Off-line readers are something that are becoming more and more popular these days with the increasing price of BT calls. The board is open from 3.30am – 2.30 am, with the off-hour time used for system maintainance and networking. It's maximum speed is 9600bps.

UNDERGROUND BURROWING

Wombats Burrow II marks the return of a popular board that had to go off-line two years ago due to technical difficulties. This is run on a PC and currently has no on-line games due to disk restrictions. There is a very popular and well-used Amiga Chat area with messages added daily as this is a Fidonet linked board. The download areas are strictly PC files at the moment, but if enough callers request it, the Sysop will add Amiga files. As a new board, the main attraction is the Amiga chat area, although there are areas covering international chat and an Australian link area. Another area which may make this board worth ringing is the CU Amiga area. This area is a Fidonet area, and currently only operates on a few boards but, in time, will be available to many others. This is where you can leave messages for the magazine, and even receive personal replies. The number needed for Wombats Burrow II is 0634 377303 from 10pm – 8am daily with a maximum speed of 2400bps

AMSTRAD ENTER THE MARKET...

Finally, we've just got time to look at a very popular modem – the Amstrad SM2400. Available from all good computer suppliers at around the £200 mark, this is a v22bis modem (2400/2400 max) that is fully Hayes-compatible. The unit is a long slimline Modem which matches the Amiga's colouring and features an auto-answer auto-dial system which makes it an ideal modem for both Sysop and user alike. The manual is clear and concise and setting up and installating is a very simple job. LED displays on the front panel give a clear indication of the current status. Although the retail price is around £200, if you shop around you will be able to get it slightly cheaper.

TERMINOLOGY

Does your terminal use Ansi graphics? is a question that you may well be asked when you first log on to a board. The answer to this generally depends on the software you are using but, with its superior graphics capabilities, your Amiga is perfectly capable of using Ansi, and is a colourful way of presenting text.

To upload is to send a file from your computer to the host or Bulletin board, whilst download is to receive a file. There are many Protocols to do this, the most common are X modem and Y Modem. When using a slow modem, you need something faster to save on your telephone bills. You also need a way of transferring more than one file at a time. This is where Ymodem Batch is usefull. This enables you to list the files that you wish to send/receive and it will then do all the work for you.

SIG, ECHO, AREA, BASE These are all ways of saying the same thing, an area that deals with a certain subject such as files, or in a message base, a particular topic.

NEXT MONTH... We take a look at more boards and events appearing on the bustling comms scene.

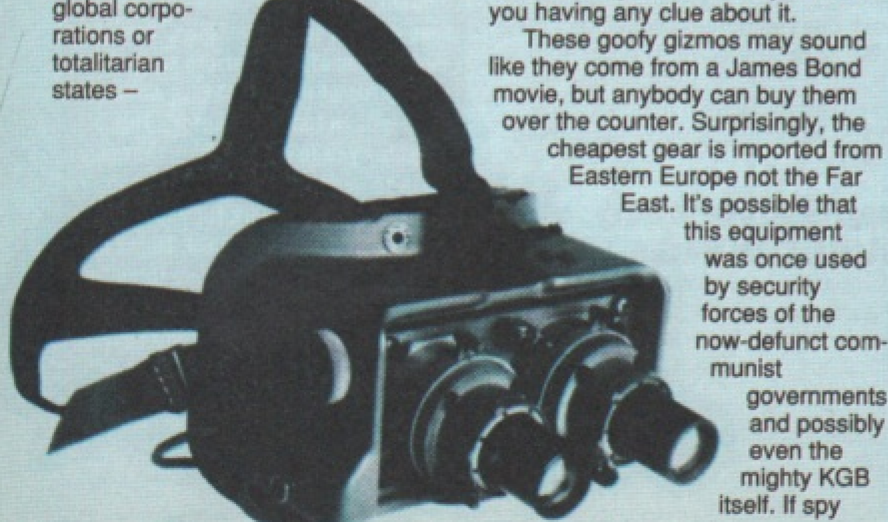
inside information

From the latest advances in electronic surveillance and tracking techniques, to the monthly games charts, Rik Haynes gives us his expert opinions on what's hot and what's not, in the ever-busy computer world...

SPIES LIKE US

Want to grab an edge over your competition? Rik Haynes looks at the latest gadgets for everyday secret agents...

A new form of urban warfare is twisting through the sidestreets, roofs and basements of Tokyo, New York and Paris. Instead of pure violence, bright criminals are turning to electronic surveillance to make fast and easy money. Industrial espionage is big business. We live in a society where a tiny scrap of the right information can provide riches and power beyond the dreams of many. Whether it's the blueprint of a car, or the financial forecasts for a multinational conglomerate, there's usually somebody willing to pay a high asking price to see such secret info. Bugs have replaced guns as the ultimate weapon. Not that this state of affairs is restricted to global corporations or totalitarian states – individuals can just as easily benefit from a bit of extra knowledge.



It's easier than you think. Plenty of people in this sneaky business are willing to sell their tools of the trade to the novice. How about the briefcase with a miniature video camera built into the lock mechanism? Or the ultra-sensitive microphone that can listen into a conversation from over a mile away? Or the covert camera disguised as a sprinkler in the ceiling? Or the system for tracking individual vehicles? Anybody who has seen the Oscar-winning Silence of the Lambs will remember the serial killer in this film used night vision goggles to stalk his victims. Not a very nice thought, eh? A complete psycho could pinpoint your every movement and action during the entire day without you having any clue about it.

These goofy gizmos may sound like they come from a James Bond movie, but anybody can buy them over the counter. Surprisingly, the cheapest gear is imported from Eastern Europe not the Far East. It's possible that this equipment was once used by security forces of the now-defunct communist governments and possibly even the mighty KGB itself. If spy supermarkets enter the high-street, there could soon be need for a self-help group like Paranoids Anonymous as jealous lovers check on their partners. What would happen if your boss bugged the office? A slip of the tongue could suddenly end your career.

Of course, this threat is not taken lightly by people with something to hide. The counter-surveillance industry is probably expanding at a faster rate than the outfits causing the problem. What's the best way to tackle an unwanted intrusion? Handheld bug alerts are a great help. These can usually detect any kind of listening device in the room. Keeping telecommunications secure is a little more difficult to achieve and, consequently, far more expensive to implement. It can be done, though. As a result of the rise in the number of fax machines in use around the world, the facsimile scrambler is one of the most successful products in this sector. Easy to install, this mechanism ensures transmissions are encrypted before they reach the unprotected telephone network. Obviously, the fax machine on the other end of the line must be capable of converting the documents back to normal. Last year, Samsung launched a small robot to patrol the home on the constant look out for burglars, fire and cries from children.

This whole wacky phenomenon also extends to personal safety. There are many effective ways to foil a potential attacker. For starters, certain briefcases can send out a painful electrical shock when touched by unauthorised hands. Next on the shopping list should be some bullet-resistant glass for your car and a nice raincoat made out of Kevlar. This tough material can withstand a close range shot from the world's most powerful handgun. The next generation of bullet-proof vests will reportedly use a substance based on spider's silk! Sadly, muggers and rapists could also pay a visit to their local spy store and get fully rigged out. Who will win then?

Computers are the hardest things to protect against prying eyes and harmful manipulation. Ever since the introduction of the modem, hackers have left their messages and mark on almost every bulletin board in existence. A cynical saboteur simply adapts this technique and can easily cripples any modern day company by introducing a dreaded virus. These malevolent programs can wipe out crucial data or totally crash computer systems within seconds. The really tricky ones are more subtle, taking months to do their evil deed, thus avoiding detection from the security experts looking out for them. During the Gulf War, the CIA managed to insert this kind of software into the Iraqi defence hardware to hamper their monitoring of the invading Allied forces. This is where the real battlefield of the 21st century will be. Don't laugh, the effects will be more devastating than a tactical nuclear strike. I wouldn't rule that strategy out, either. Some terrorists may have this capability within the next few years.

CALLING ALL CYBERPUNKS

Works of pure science fiction often give inventors the inspiration to produce something for real. Let's hope none of these boffins get hooked on the entertaining novels of William Gibson, Bruce Sterling, and Rudy Rucker. Or has it happened already? Remember the inventive South American thief who was caught with a miniature vacuum pump crafted into one of his fingers? He managed to amass an absolute fortune from local jewellry shops before a nasty infection gave the game away. I bet he subscribed to Mondo or some other journal of the future. It's just a sign of the resourcefulness and ingenuity shown by this type of cybercriminal. How much longer will it be before delinquents have razor sharp blades surgically implanted into their hands? Or electronically-enhanced hearing? Or, most frighteningly of all, a combination of both?

THE WAY WE WERE

THREE YEARS AGO

• Some felt FTL and Mirrorsoft had made a bad mistake when they released a version of *Dungeon Master* that required machines with at least 1Mb of RAM. In those days, the majority of games ran on standard 512K Amiga systems. The risk quickly paid off as many people decided to upgrade their memory just to play this influential RPG. Psygnosis now handles FTL product in Europe. We're still waiting for *Dungeon Master II*, of course.

• The first edition of Action Screenplay, a computer game magazine on video, went on sale. This concept has never taken off. The latest casualty, Click, only made it to issue two.

• Ocean took a bold step to increase the range of games in its repertory. *Voyager* was, essentially, the first release from the firm to fully utilise the Amiga. Although many journalists liked this racy 3D shoot 'em up, commercial success didn't follow the rave reviews. Let's hope this trend isn't repeated with *Epic*. By the way, do you remember the advert for *Voyager*? It caused a bit of a stir because the maverick hero Luke Snayles was apparently reading a soft porn magazine.

TWO YEARS AGO

• Nolan Bushnell, the charismatic guy who helped create the video game craze in the early 1970s, decided the CDTV was a good idea. He joined Commodore and helped launch the world's first multimedia machine to actually hit the marketplace.

• It was a sad month for adventure fans. Infocom, the American developer of such classics as *Zork* and the *Hitchhiker's Guide to the Galaxy*, finally closed down with an unsavoury loss of $9 million.

• *F29 Retaliator*, the fast futuristic flight sim from Digital Image Design and Ocean, went straight to the top of the charts. Players were also enjoying *Player Manager* (Anco), *Warhead* (Activision) and *Pipemania* (Empire). Meanwhile, *Populous* from Bullfrog and Electronic Arts was voted the most original game at the prestigious EMAP Images' Golden Joystick Awards. *Shadow Of The Beast* (Psygnosis) picked up the title of best graphics while the readers of CU AMIGA and our sister magazines reckoned *Future Wars* (Delphine/US Gold) had the best soundtrack. Understandably, *Kick Off* (Anco) was considered to be the overall Game of the Year.

ONE YEAR AGO

• Our exclusive preview of EA's *Deluxe Paint IV* again confirmed this publication really is the complete guide to your favourite deck of fun. We also gave you the first look at *Rodland* (Storm), the easy way to make crazy T-shirts designs using the Amiga's hefty graphical capabilities, and a complete copy of *Gravity* (Imageworks). Does anybody else provide such an excellent mix of top leisure and productivity material every month? No way.

• Even nightclubs caught onto the potential of Commodore's wildchild. While DJs in Essex's Ark venue supplied hardcore music tracks from the likes of N-Joi, The Prodigy and Bizarre Inc, Amiga technology pumped out hypnotic visual noise on monitors surrounding the dancefloor.

• Although US Gold wanted to transfer video game star *Sonic The Hedgehog* to the Amiga, Sega decided the character should only appear on console and coin-op formats. It's not all bad news. Players wanting to sample this style of arcade romp should try *The Addams Family* (Ocean), *Fire And Ice* (Renegade) or *Zool* (Gremlin).

THE SOFTWARE CHARTS

TOP TWENTY AMIGA GAMES. FULL-PRICE AND BUDGET

1 PROJECT X (Team 17 Software)
Its second week at the top, and rightfully so. A supreme mixture of blasting styles with stunning graphics which are spread over a massive four disks. If you're tired of *SWIV* and *Xenon II*, this is the next logical step. CU Amiga Screenstar, 92%

2 JOHN MADDEN (Electronic Arts)
Hopes were high for this Megadrive conversion, and Electronic Arts released a game well above our expectations. There are many contenders to the American Football throne, but this is quite simply the Champion. CU Amiga Screenstar, 88%

3 EYE OF THE BEHOLDER II (U.S. Gold)
Developers, SSI, doing what they do best. A second, larger foray into a series of creature-infested catacombs and forests, with larger graphics and more detailed gameplay. A definite hit sequel. CU Amiga Screenstar 92%

4 HOVERSPRINT (Codemasters)
Tacky and dull to play, *Hoversprint* can only be in the top five courtesy of its budget price. If an over-controllable 3D spin is your thing, you'll love it - personally, we think it's a waste of space and consequently never reviewed it.

5 SPACE CRUSADE (Gremlin)
The unofficial follow-up to *HeroQuest*. Set over a series of space stations, the player has been given charge of a set of colonial marines with whom a series of missions must be completed. Atmospheric and engrossing to play, this is gripping stuff. CU Amiga Screenstar, 92%

6 BLACK CRYPT (Electronic Arts)
Set in an enormous dungeon, this is basically more of the same 3D RPG action, with all manner of weird creatures to attack, and devious traps to avoid. However, the polish the game has helps raise it above the competition. Slightly over-shadowed by Eye II, though. CU Amiga Screenstar, 90%

7 F16 COMBAT PILOT (Action 16)
An excellent budget release of Digital Integration's aging flight sim. All the usual flaps and controls are there, and whilst it must be said that it's a little hard to fly, perseverance pays off – unfortunately, it slipped through the reviewing net.

8 GOLDEN AXE (Tronix)
Dementia's conversion of the coin-op is absolutely spot-on. With the coin-op's five stages extended into six (the original game's last level has been split into two), all the arcade game's features are present and the game is extremely playable. CU Amiga rated, **%

9 A320 AIRBUS (Thalion)
Probably the most detailed flight sim to date, Thalion boast that anyone who can successfully pilot the game's Airbus to safety is ready to fly the real thing. Real land charts have also been added for increased authenticity. CU Amiga Rated, 81%

10 SPECIAL FORCES (Microprose)
A real disappointment from the Tetbury-based sim specialists. The player is given control over a party of mercenaries who are so good at disguise that they escaped review... Lots of options but the action elements are disappointing.

11 RAINBOW ISLANDS (The Hit Squad)
Probably THE best budget release of the year. Graftgold's conversion of the Taito coin-op is nothing short of stunning. Its eight stages feature all manner of secret rooms and bonuses, and these, coupled with the already-addictive gameplay, send Rainbow Islands well into the status of cult classic. CU Amiga Budget Game Of The Month, 97%

12 PARASOL STARS (Ocean)
The sequel to the above, and whilst not quite as playable still a worthy follow-up. Bub and Bob return for more bonus-laden platform japes, within *Parasol*'s larger play area. Another classic, this is the sort of game Ocean do best. CU Amiga Superstar, 95%

13 HARLEQUIN (Gremlin)
Assuming the role of the chequered hero, twenty-three stages of detailed and complex platform action await your attentions. This is easily one of the best games from the Gremlin stable and is certainly well placed in the list of platform all-time greats. CU Screenstar, 91%

14 ELVIRA II (Accolade)
Not as good as the first, but still quite enjoyable. The necessity to pick up everything before you get to see what it is, is a real pain. but gorefans will be pleased by the frequents smatterings of blood which punctuate the action. CU Amiga Rated, 71%

15 NORTH AND SOUTH (Action 16)
This has been bobbing up and down the charts longer than Meat Loaf's Bat Out Of Hell LP, and rightfully so. Based on some obscure French cartoon, this is wargaming for the very beginner and is well worth eight quid. CU Amiga Rated,80%

16 PGA TOUR GOLF PLUS (Electronic Arts)
An accessory disk to the original PGA Tour, and offering more courses for your money. It doesn't add anything particularly new, but ardent fans and would-be Jimmy Tarbucks will enjoy the new courses. Not reviewed.

17 A10 TANK KILLER (Microprose)
Another one to escape our reviewing net, but this is basically an updated version of the popular tank sim. Loads to blow up, and all depicted in thrilling 3Dorama. There are better about, though.

18 ALIEN BREED (Team 17)
The nearest the Amiga has to a decent Alien licence. Stunning 32-colour graphics play host to a *Gauntlet*-style blast. The main hero sprites are a little weak, but the blast action is playable in the short-term. CU Amiga Screenstar, 90%

19 SHADOWLANDS (Domark)
Developers, Teque, enter the 3D zone as they introduce a simplistic slant to the RPG genre. OK, so there are buckets of this sort of game available, but this is a perfect entry to what can be a frustrating gamestyle. CU Amiga Screenstar, 91%

20 ITALIA 90 (Tronix)
We round off the chart with a complete pile of tripe. An utterly useless Footy sim rushed to coincide with the titular finals. All the game's rules have been ignored, and that's the best thing to do with this abysmal crud. Not reviewed.

Chart supplied by Microbyte retail chain

dyslexia
spelling it out

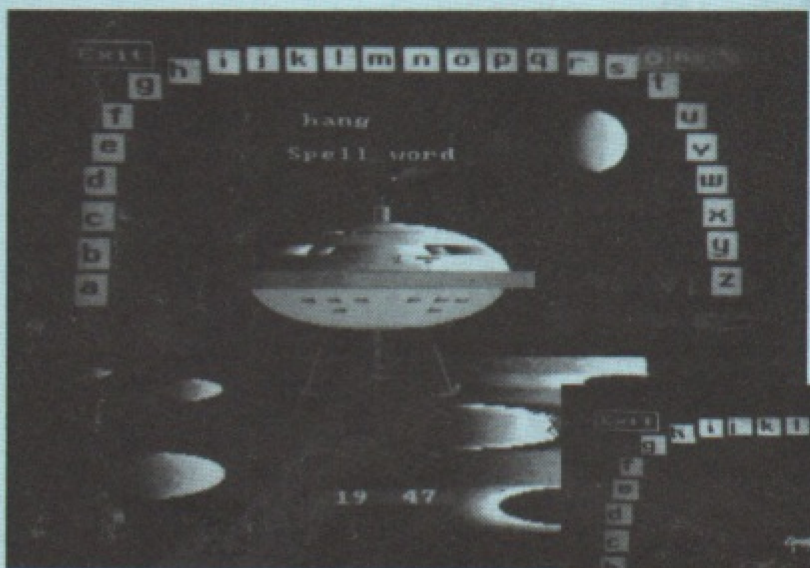
Dyslexia, an abnormal difficulty in reading and spelling, is more widespread than you might think. Mike Gerrard looks at a revolutionary program aimed at overcoming this condition, and speaks to the designers.

WIDESPREAD PROBLEM

It is estimated that as many as 10% of the UK school population suffers in some degree from dyslexia. This totals roughly 500,000 children, and these figures still don't take into account the unknown number of adult sufferers, who may be too embarrassed by their reading difficulties to admit to needing help. The story behind a new program designed to help with dyslexia goes back a long way, as its publisher, Max Lipman, explains: 'I first became interested in the subject when my son was almost nine years old – and he's now twenty!'

Lipman's son, Nicholas, was bottom of the class and having serious problems at school. The Lipmans' took him out of school and gave him private tuition for one term, and on returning a few months later Nicholas was top of the class. This showed Max that his son's problems were nothing to do with lack of intelligence, as indeed was later confirmed when Nicholas went on to pass his A-levels with good enough results to earn him a place at Bristol University studying Mechanical Engineering.

'One of the things I feel,' says Lipman, 'is that children who have this problem which we call dyslexia can very easily become delinquents. It can upset their whole lifestyle. They're told at school that they are stupid, they become the butt of everything, other children make fun of them because they have trouble reading. If you can't read then the assumption is, of course, that you're stupid, whereas in fact it is nothing to do with intelligence at all, as I think the example of someone like Nicholas shows.'



Left: Complete control is given over the games, and everything from the speed at which they play to the length of each session can be determined. The length of time a game is spread over is best kept short to begin with, as this promotes interest – the key to learning.



***Right:* Dyspell uses bright and attractive graphics to hold the user's attention, and these lead on to a series of coordination-based games. Although very simple in style, these games prompt the user to expand their knowledge by gradally feeding them new words and how to recognise them. It's a system which works exceptionally well.**

AN ANSWER IS FOUND

At the time of Nicholas's troubles, his father was running a computer company and admits that he was lucky enough to be able to afford a private tutor for three hours a day. 'It costs me a fortune,' he says, 'but it was worth doing.' Now he hopes to get some of his money back, as by observing the way in which the tutor works, Max realised that many of the tasks were very repetitive and ideally suited to being performed by a computer. The result is *Dyspell*, recently released by Lipman's company, Sally Systems Ltd., and available solely for the Amiga.

'It was only in 1987 that I started looking into ways of making available to other people what I'd discovered myself about dyslexia. It was at that time when I decided that desktop computers had come down to an affordable price. The obvious machine to go for, according to friends and colleagues, seemed to be, of course, the IBM-PC. But I looked around and saw that if I wanted to get the same quality of graphics and sound from the MS-DOS machine that I could get from the Amiga, I would have to add a board to the PC which itself cost more than an Amiga!'

Lipman wanted to go for a system which was affordable not just by schools but by parents at home. Another possible option, if he was aiming solely at the educational market, was the Archimedes, which at that time was just emerging. 'I did speak to the people at Acorn,' he explains, 'but I wasn't getting very much back by way of positive response, let's put it that way. Also, the programming language we wanted to use on the Amiga wasn't available for the Archimedes, and finally there was the question of price, of course. If I was going to do something for a machine that was affordable at home... well, in that respect the Amiga is preeminent.'

'As to what the program does, there are two principal things which underlie it all. The first is that



Dyspell is all about mastering word recognition, and its layout means that the user can take as much – or as little – from it as they wish in their own time.

you simply have to get the eyes to move in the right way, and the second involves dealing with hand-eye coordination. Then you have to repeat this over and over again. You have to find ways of going over things repeatedly, hopefully in a way that doesn't become boring to the user. That's why we regard our exercises as games. Most of the work is done using the mouse, and it's very important that you can transfer the visual image from the screen into a physical act by moving the hand. This means that it's gone through the whole process in the brain, and done it successfully, instead of getting stuck somewhere along the way.'

WORD RECOGNITION

Dyspell has a progressive series of exercises which take the child from the recognition of the basic shape of a letter through to the spelling of whole words. The games to use, their length, the speed at which it all happens and other factors are all under the control of the parent or teacher. Each child has his or her own disk, on which all this information is contained, along with a pupil profile. The program also uses a reward and incentive system to print out certificates to mark different levels of achievement. Encouraging comments by teachers or a parent can easily be added to the wording on the certificate. 'This element of reward is so important,' Lipman explains, 'and so often neglected. Children like and need to be rewarded for doing well, to reflect the work they have put in. Even if they have only made a small amount of progress, they have worked for it and that needs to be acknowledged. The certificates, which I think are very attractively presented, help to do that, I believe. A new element we have added is to put the results into a graph, so that there is another visual representation of the child's improvements.'

ADDRESS BOOK

Dyspell is available as a software only package for £411, including VAT, although it does require a hard disk. The program spans thirteen disks if you wish to install it yourself. Sally Systems also sell a complete system, including printer and hard drive with Dyspell already installed, for £1566 including VAT. Rental terms are also available, reflecting that dyslexia is a short-term problem. For more information, contact Sally Systems Ltd., Upper Bumbles, Saxon Gardens, Taplow, Maidenhead, Berks, SL6 0DD. Tel: 0628 24626.

NEWS

GAME FOR A JOB

One argument against the use of 'approved' computers, such as the BBC and Nimbus machines, in schools has always been that schools are the only places you're likely to find such machines! Step out into the real world and you'll have to go a long way to find an office that's run on a BBC-B computer, or even an Archimedes, so your intimate knowledge of those machines won't get you very far. Hence the increasing attraction of computers that you might feasibly go on using after leaving school, such as the Amiga or the ubiquitous PC.

For this reason, it's particularly good to discover what's happened at the King Edward VI School in Northumberland. The school not only acknowledges the outside world by having eight Amiga 500s, but goes further and understands that a valid job option for the 1990s student is writing computer games. Two boys recently left the school to take up full-time jobs with Ocean, publishers of best-selling games like *Robocop*, *Epic*, and *The Addams Family*. A third pupil from the school has also landed a part-time job with Ocean during the school holidays.

The jobs came about after a visit by Peter Talbot, Commodore's National Business Development Manager (in charge of education as well as business developments). Talbot saw some of the work the boys had done, and says that 'it was very impressive. I mentioned it when I visited companies and one company in particular, it seems, was more than interested.'

Their former technology teacher, Wilf Rees, said 'I have a computer suite ehre with Amigas and Archimedes, and the boys got obsessed by the Amigas. They're close friends and started writing little routines, then got into coding and so on. In fact, I spent half my time kicking them out of the computer room, because they'd never leave it! They are treated superbly now, though, working hard and are enjoying every minute of it.' Rees admits he was anti-Amiga at first, without really looking at what the machine was capable of. He was persuaded to take a look at the computer when he realised how many pupils had one at home, and he now prefers it to any of the other machines the school uses. The Amigas are used mainly in Art and Design, and they have been taken up enthusiastically by staff and pupils alike, and the school now runs in-service classes for techers elsewhere in the county, educating them in the Amiga.

BIRMINGHAM'S ALIVE, WITH THE SOUND OF MUSIC

More on last month's brief mention of the music technology centre recently established at a Sixth Form College in Birmingham. This is at the Joseph Chamberlain College and is part of a scheme whereby the Birmingham Local Education Authority has bought 105 Amiga 500s to be evaluated in Art & Design and Music Departments throughout the city's 80 secondary schools. Birmingham is now the UK's largest Metropolitan Education Authority.

The Music Technology Centre is being funded jointly by Birmingham LEA and the Technical Vocational Education Initiative Extension, and will act as a test and development site for music software, curriculum materials development and the all-important staff training for the Amiga.

Birmingham's IT Project Manager, Mike Kendall, commented that 'Many of the Art & Design teachers already knew about software such as *Deluxe Paint III* and what it can do, so the Amiga didn't really need much explaining in this area. But the machine has less of a reputation in the music area and part of the task of the Joseph Chamberlain music technology centre is to heighten this awareness.'

To help in this, Commodore has loaned the centre four Amiga 2000s, with Roland also stepping in with help in the form of keyboards, sound modules and speakers. The college already already has its own 8-track recording studio, and much of its work will be aimed at putting together music technology specifications for the national curriculum. 'The centre,' says Mike Kendall, 'will be used as the focus for development work, looking at what the computers can do and at what the curriculum requires and making a match where possible'.

EVERYTHING YOU NEEDED TO KNOW ABOUT...

AREXX JUST WHAT IS IT?

ARexx has been billed as THE best programming language on the Amiga. Here's Alex Gian to guide you through its many intricacies..

A PERSONAL PROGRAMMING ENVIRONMENT

In 1991, the Amiga won the 'European Home Computer of the Year' award. Its superior Graphic User Interface, multitasking, and impressive graphic and sound abilities have brought a new level of computing power to the 'home' user. Now, one thing that everybody expects from any personal computer is the ability to offer control and automation over all its tasks. This was true even when home computers were paltry affairs by today's standards. As users become less dazzled by the abilities of the machine, they become more interested in how to use it practically themselves. This shift from a passive to a more active style of home computing stresses the need for a personal programming language for the Amiga.

The lay person could well be excused for thinking that such a language should come automatically with the computer. In an ideal world that might be the case, but in reality, good software always takes time to follow the hardware. Even now, so many years after the first Amiga, its ideal language is still far from being implemented, although some valiant attempts have been made.

For many reasons, neither AmigaBASIC nor AmigaDOS ever became popular for personal programming. A substantial vacuum existed in this area. That was until the long-awaited release of Workbench 2.0 on the Amiga which introduce a new contender in the personal programming language stakes – ARexx.

ARexx is derived from the REXX language used on big computers for script control and interprocess communication. It was implemented on the Amiga by Bill Hawes, a programmer with some impressive programs to his name. It is generally agreed that the implementation is extremely sound, and that it takes special advantage of the Amiga's features. ARexx is not a new language, and has had something of a cult following for quite a while, especially among US programmers. However, once its super-practical nature started to become apparent, more and more people became interested. Today, many serious applications have ARexx support. ARexx is a good example of a specialist utility which made it to mainstream big time purely on its own worth.

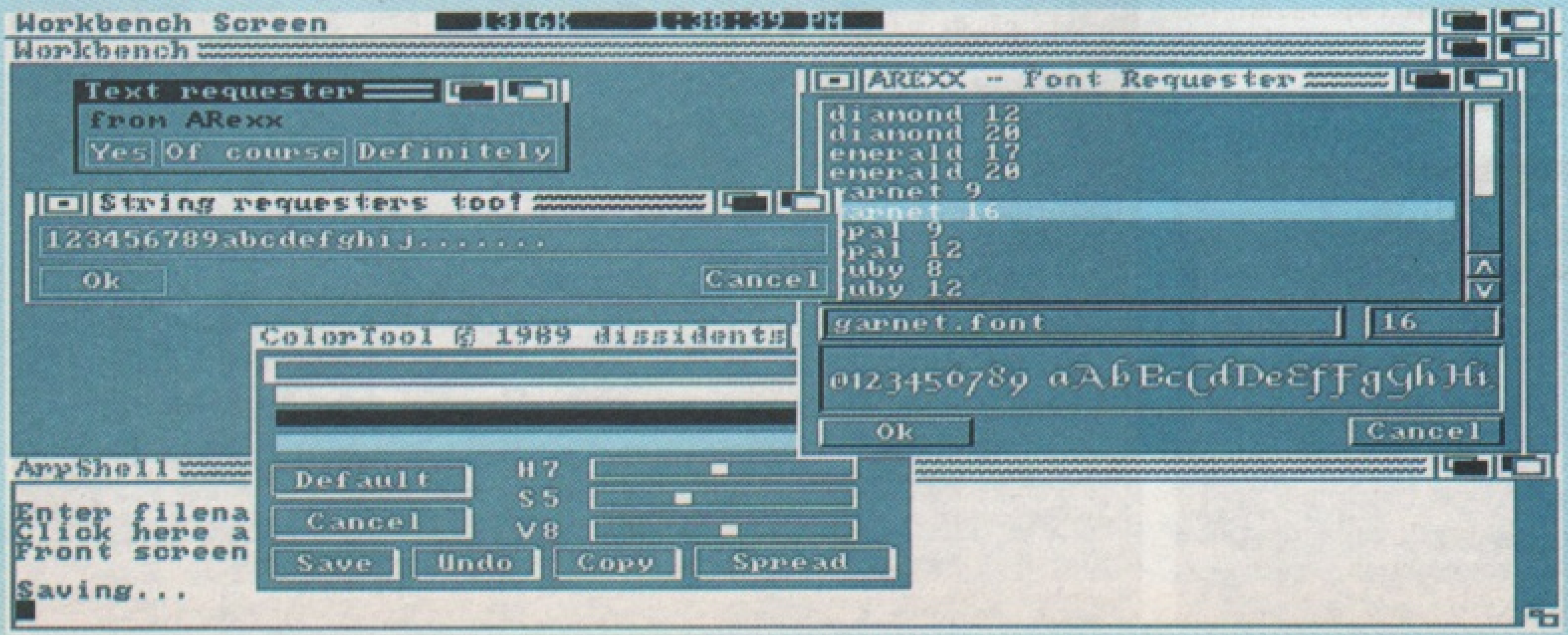
In this on-going series, we'll examine how well ARexx can fill the need for a personal programming environment. Our aim is to give a general overview of the language, outlining its powerful features and how best to use them. We will also try to clear any confusion and misunderstandings that have come about, and supply enough information to encourage further experimentation with the language.

What are the features of a good personal programming language? Well, it must be simple and practical, to be easily accessible, even to users who are newcomers to computing. It must also offer advanced control features, so that more experienced users can easily get what they want out of their system. It should also be interactive so that users can see what is happening at each stage, make changes quickly and check them easily.

There is one more very important point: in a multi-tasking computer, this language should be able to coordinate and link the programs running on the machine in an integrated way. This will allow users to combine and customise the abilities of their various programs in a 'seamless' manner. All kinds of packages may need to be linked. Art packages to video work, databases to modems, formulae to animation sequences – just about anything that will benefit from the extra control. Up to now, this has not really been an issue, since not only home computers, but even bigger business machines did NOT multi-task well enough to allow interprogram communication.

NEW GROUND

In allowing this, the Amiga is breaking totally new ground. It is not really a home micro at all, not in the old sense of 8-bit home micros, and certainly not from a programmer's point of view. Amiga system programming needs to manage several levels of hardware and software complexity. Any personal programming environment must shield the



Not a lot of people know this, but complete intuition control is available via ARexx, using the support libraries to create your own gadgets and requestors.

AREXX – A MULTI-TASKING MICRO'S LANGUAGE.

ARexx brings many innovative features in its implementation. To make best use of its flexibility, we need to get used to the ARexx way of doing things. Here is a summary of the main points:

• Firstly the language is implemented as a shared Amiga library. Amiga libraries multitask, so you can run as many programs as you like simultaneously. You do not have to go into a special interpreter environment as you do with other languages like BASIC, *AMOS*, LOGO, etc. Once launched, ARexx is always available in the background, taking very little space, and can be used as needed. You can also launch and control ARexx programs from the Shell, without the hassle of having to leave your familiar environment.

• Secondly, ARexx uses the Amiga OS 'port' features, so that ARexx programs can communicate with each other by sending 'messages'. ARexx implements a custom port of its own. Any program with a 'port' that meets the ARexx specification can be used. The messages passed can contain both commands and data. Utilities are available to allow programmers to add a simple ARexx port to any program with ease. For instance, a program that had to be run through the Intuition interface - via mouse clicks, etc – could be given an ARexx command interface so that all the mouse/menu actions could be repeated by custom ARexx commands. A script could then be written to make the program run automatically, even from another ARexx program. Useful for when you are performing those long fractal animation sequences!

• Thirdly, in addition to its own internal functions, ARexx can be infinitely extended by the use of custom libraries. These libraries are similar to Amiga shared libraries, but they also contain some ARexx specific code. They can only be written by experienced programmers, but they can be used by anyone. Many libraries exist, which allow all kinds of features to be added to ARexx, including math functions, full control over graphics, windows, menus, access to all the Amiga system functions, and much more. Enthusiastic ARexx supporters are creating more excellent libraries all the time, and most of them are freely distributable!

• Fourthly, Arexx is easy to use. Unlike BASIC, there are no data types to be declared at the beginning – i.e. you do not have to specify integers, real numbers, characters, etc. Internally ARexx handles everything the same way, and data can be combined freely. ARexx also has a powerful way of handling arrays. Because all variables are handled as strings of characters, ARexx is well suited to processing text and other formatted data. Above all, ARexx programming is PRACTICAL.

• Finally, on the negative side, it should be said that ARexx is relatively slow. This is a shortcoming of all interpreted languages. A time penalty is also incurred due to the flexible way of data handling, and the internal numeric conversions. However string operations are relatively fast, and used properly, ARexx yields acceptable speeds.

user from these complexities whilst allowing as much control as possible. Even though ARexx meets the requirements quite well, there still seems to be some confusion about it all.

One of the reasons for the confusion is the dual character of ARexx. It is both a means of external program control, and a fully fledged language. This is a novel concept to many people, and conjures up images of awful complexity. Even the name ARexx sounds more like an arcane communications protocol than a language to simplify computer use. Why couldn't it be named something like 'SIMPLE' or 'EASY1'?

The notable lack of documentation in the Workbench 2.0 distribution does not help either. Like many other things about the Amiga, some effort is required at the beginning. I hope this article sheds a little light where needed; I suspect that too many of the very people that would get the most out of ARexx are totally in the dark about it.

When you consider the demands made on a personal programming language for the Amiga, you'll realise that they are substantial. The user will expect to be able to control the system, the windowing environment, the multitasking, and all the other Amiga bells and whistles. ARexx provides an elegant and concise way of doing so.

Part of the simplicity of ARexx lies in its small size. It provides excellent control with just over 30 built-in instructions and about 80 simple functions. ARexx has been specifically designed with multitasking in mind. It allows access over the whole Amiga system NOT by providing endless features, but by providing a simple communication system that lets programs 'talk' to each other, and thus also control each other remotely. More than this, ARexx is a complete language in itself, with many novel features, all geared towards making computing practical and easy.

Up until now, the main personal language of most micros has been BASIC. The main reason for its longevity is that it is easy to learn. AmigaBASIC is no longer distributed with the Amiga, but ARexx has some similarities and is in fact even simpler to learn and use. The other main way of controlling the Amiga has been AmigaDOS; but while AmigaDOS is quite sufficient for copying or renaming the odd file, it is awkward and definitely not suited for any work that involves calculation. ARexx has an excellent connection to AmigaDOS; you can use its high-level constructs to perform computations, and easily send the results to AmigaDOS, just as if you had typed them at the CLI. In fact, REXX is actually available on PC compatibles, without any multi-tasking features, just because of this ability!

THE TRIPLE NATURE OF THE LANGUAGE

We've already mentioned that ARexx has a dual character, in that it provides a utility language as well as a means for interprocess communication. In reality, ARexx has three main roles:

1. A language for writing complete programs and applications.
2. A macro language for building ➤

SUMMARY OF THE MAIN AREXX INSTRUCTIONS/FUNCTIONS

OPENING COMMENTS

Remember that all ARexx programs must begin with a comment. If you leave it out the program will not run. This is a very common beginner's error!

OPERATORS

ARexx supports all the usual arithmetic operators, i.e. +,-,*,**,/,=,<,>,>= and <=. You should also be aware of the following:

~ Negation e.g ~= not equal to etc.

% Integer division, the quotient without the remainder.

// Modulo, the remainder of a division.

== Exact (literal) equality.

|| String concatenation, i.e joining up 'a'||'bc' = 'abc'.

& AND

| OR

^ XOR, the logical exclusive OR. (either one or the other)

INSTRUCTIONS

The following is a list of the commands and functions you are likely to use the most when you program in ARexx. The instructions are organised into groups to make it easier to find them, as long as you remember vaguely what it is they do

FLOW CONTROL

These instructions handle the sequencing of the code – loops, etc.

DO....END: All blocks of instructions that have to be repeated must be enclosed between a DO and an END instruction. DO has the following options:

DO FOR x: The block is repeated x times.

DO FOREVER: An endless loop that can only end with a BREAK or LEAVE instruction.

DO i = a TO b [BY c]: A counting loop that counts from a to b in steps of c. During the 'looping' the variable i has the current value of the count. Similar to the DO-loop found in most languages.

DO UNTIL x: Keeps looping until the condition x is true.

DO WHILE x: Similar to the above except that the condition is checked at the start of each loop. UNTIL checks the condition at the end of the loop.

DO without any arguments marks a simple execution block, such as those used in conditional statements.

ITERATE: Used between DO and END statements, forces a return to the beginning of a loop, before reaching END.

BREAK: Forces an exit from a DO...END range.

LEAVE: Forces an exit from all DO...END ranges when these are nested. ➤

AREXX JUST WHAT IS IT?

small programs to facilitate system tasks.

3. An automation system for linking and coordinating different programs running on the Amiga so that they act as an integrated unit. This last feature can also be used to design and test applications interactively.

1 THE LANGUAGE

Before we start on the language itself, here are a few things to remember: to run any ARexx program, the interpreter must first be loaded in the background using the RexxMast command, which may already be present in your startup-sequence.

ARexx programs can be written using your favourite text editor. Their first line MUST always be a comment – they will not run otherwise! An ARexx comment looks like this:

```
/* any comment goes here */
```

By convention, programs are saved with a .rexx suffix. To run any program, you just type ' rx myprogram.rexx' at the CLI or the Shell. The .rexx suffix is optional. If you keep your programs in a directory that has been assigned the name REXX:, the interpreter will search for them there automatically.

Normally, ARexx instructions are not case-sensitive. For practical purposes, we can say that all instructions are converted to upper case. To ensure that a value is interpreted in lower case, it must be enclosed in quotation marks. Either single or double quotation marks can be used, but they must be consistent. Where there is possible ambiguity, using the two different quotation marks can make things clearer.

Instructions are usually given one per line. If there is more than one on a line, they must be separated by a semi-colon. You can also run very small ARexx programs (1 - 4 lines) straight from the CLI, by using the RX command, e.g.: rx 'a = 45 ; say a' Strange as this may seem, there are times when this is very useful.

STRINGS AND VARIABLES

The main strength of the ARexx language is its excellent ability to handle strings of characters, with few limitations. One of these, though, is that the maximum length of ARexx strings is 64 kilobytes, so data larger than this has to be split into more than one string (obviously, any data can be viewed as a string of characters). To get an idea of the ease with which data is handled by ARexx, we will have a look here at some examples of input and output.

First, we will see how strings can be combined – see Listing 1. Incidentally, variables which have not yet been assigned a value, are given the value of their own name in upper case.

LISTING 1

```
/* output test */
var1 = Strings
var2 = "are easily"
var3 = "combined."
string1 = var1 var2 var3
x = "up to"
y = (32768 * 2) - 1
z = "bytes are allowed"
string2 = var1 x y z
say string1
say string2
```

The data is automatically combined into a sentence-like string. Numeric values are calculated in the process. ARexx implicitly understands the blank spaces between the variables, and inserts them appropriately. It is also possible to join up strings without blanks, by using the special concatenation (joining-up) operator ||. Listing 2 demonstrates this.

LISTING 2

```
/* output test2 */
v1 = ar
v2 = "exx has"
v3 = 2 * 5
v4 = "00s of uses."
s1 = v1||v2 v3||v4
say s1
parse var s1 first second third rest
say third
```

The first part of Listing 2 is a straightforward demonstration of joining up without spaces. The second part, the instruction PARSE VAR, shows how easily ARexx can separate complex data strings into their components. The string s1, 'ARexx has 1000s of uses', is split into the variables supplied: 'first' gets the value 'ARexx', 'second' gets 'has', 'third' gets '1000s' and 'rest' gets 'of uses'.

PARSE is also the instruction used for getting input from the keyboard, using the PULL option. The simplest way to illustrate this is with an example – see Listing 3.

LISTING 3

```
/* some input */
say "Please enter your name."
parse pull name
say "Hello there," name
```

These examples show the power and the flexibility of string-handling. A shorthand for PARSE PULL is PULL, but this will convert all input to upper case. PARSE is one of the most powerful ARexx language instructions, and has many options. More details are in the panelled sections accompanying this article.

ARITHMETIC

ARexx provides basic arithmetic operators, and more can be added by using special libraries. Even though all data is handled as strings, there is the built-in ability to detect and evaluate numeric values. The string resulting from the evaluation is then used by the program.

ARexx also has the ability to select the level of decimal accuracy, and the format in which numbers are handled. In addition, there are a number of ways to allow conversion between formats. All this is accomplished using the NUMERIC instruction.

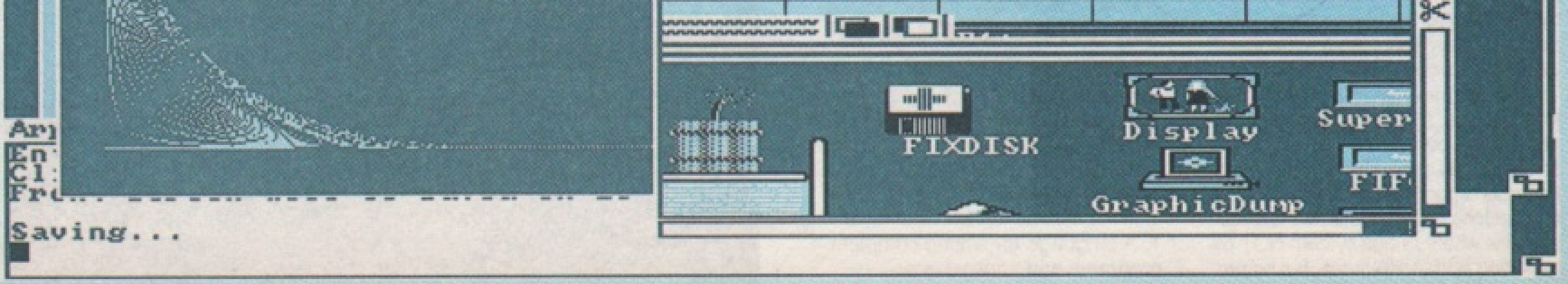
There is also a special format for representing strings as hexadecimal values: '31'x is the same as '1', '32'x is '2', '6b x is k', etc. These values can also be joined up: 326bx is the same as 2k. More advanced programmers will be glad to see that strings can also be represented in a binary format, using the suffix b, for instance: '00101111 01010110'b. There is also a comprehensive set of functions for performing bitwise operations such as logical ADD, OR, XOR, etc.

FLOW CONTROL

No real language is complete without good flow control. ARexx provides good support for loops, conditional checks (if statements and case selection) and branching.

Any set of instructions that has to be repeated can be defined by a block beginning with the instruction DO (with the appropriate options) and ending with the instruction END. A DO block can have a number of options, for instance DO FOR 100 will cause 100 repetitions of the instructions within the block, and DO

ARexx is quite simply THE best programming environment for the Amiga. It's powerful and easy to use, and has already been accepted by software developers for inclusion into their programs. The main advantage of this is that you can effectively combine packages together to make them even more flexible and ideal for your personal use.



I = 1 TO 100 will behave pretty much like the traditional BASIC loop. There are also options for setting the counter steps and doing WHILE and UNTIL checks. All these are detailed in the accompanying cut-and-keep section. DO ... END blocks can be nested within each other, and there are also facilities for breaking out of them, using the LEAVE and BREAK instructions.

ARexx provides two instructions for conditional checking. The instruction 'IF a THEN b' checks whether the expression 'a' is true, and if so, executes instruction 'b'. If it is not, the program continues on to the next line. Either-or cases have the line ELSE immediately after the IF instruction. Where the outcome of the conditional entails carrying out more than one line of instructions, they must be enclosed in a DO ... END block. All this is pretty straightforward, and much as you would expect in any high level language. Listing 4 illustrates this.

LISTING 4

```
/* if testing */
do forever
say "enter a number"
parse pull n1
if datatype(n1,numeric) then do
  say "thankyou"
  leave
  end
  else do
  say "you did not enter a number!"
  say "you entered the string" n1
  say "try again"
  end
end
exit
```

Where conditional checking has to be performed on more than two choices, then the instruction SELECT is used.

Branching is handled in ARexx using the powerful SIGNAL instruction. SIGNAL is followed by the name of a label to which the program execution branches. A label name in a program is followed by a colon. In this context, SIGNAL is similar to a 'GO TO' statement found in other languages. SIGNAL can also be used to cause branching when certain conditions are met, e.g. a syntax error or a break request from the keyboard. When signalling is used like this to trap events, it can also be switched ON/OFF. See Listing 5 – more details are in the separate section.

LISTING 5

```
/* signalling */
signal on syntax
if —3 ~> 0 then say "yea"
exit
syntax:
say "you have a syntax error"
exit
```

ARRAYS

ARexx does not support arrays as they are usually found in most computer languages. Instead, it provides the interesting and innovative concept of compound symbols. Compound symbols are more like trees than arrays, and can easily be used to simulate arrays. Their size does not have to be initialised at the start of the program, and data is simply added during program execution. Furthermore, they do not have to be numerically indexed, and can allow complex structures to be built up. Learning to use them correctly greatly extends the scope of ARexx programs.

Compound symbols are basically symbols with many variable names separated by full stops – the best way to illustrate this is with examples. Firstly, if you have an array of, say 10 elements, you can refer to it as

a.1, a.2, ..., a.10. This can be useful when used in iterative loops. However, you are not limited to using numbers in sequence; an 'array' could have only the elements ar.1, ar.17, and ar.1074. In this form, it would take much less space than a huge array with many uninitialised values. Furthermore, you are not even limited to using numbers: man.age, man.name and man.address are all valid compound symbols. The first part of a compound symbol is called the stem, and the subsequent parts are called nodes. Nodes can even be the names of variables, which are evaluated when the expression is interpreted. We will not go into this subject in great depth in this issue; your imagination and your programming skills set the only limits to how you use compound symbols. Listing 6 will help to illustrate the elements of this idea.

LISTING 6

```
/* compound symbols */
person. = "unknown"
person.1.name = "Rosie"
person.2.name = "Gavin"
person.1.song = "Rock Me"
person.2.shoes = "red"
person.2.shoes.size = "14"
middle = 2.shoes
do i = 1 to 2
say person.i.name person.i.song
person.i.shoes
end
say person.middle.size
exit
```

Phew! We hope all this is crystal clear! You will note that when the stem of a compound symbol is initialised to a value ('unknown' in Listing 6), then all possible compound symbols for that stem are set to that value until they are changed

FUNCTIONS

There are four different levels of functions in ARexx. When a function is called, the system searches for it in the following order:

1. Functions defined in the program.
2. Built-in ARexx functions.
3. Extension library functions.
4. External macros.

SUMMARY OF THE MAIN AREXX INSTRUCTIONS/FUNCTIONS

back to top-level.

IF a THEN b [ELSE c]: executes b if a is true, otherwise the optional c. When b or c are complex instructions, they must be enclosed in a DO...END range.

NOP: Does nothing! Is useful for creating nested IF-THEN-ELSE instructions.

SELECT: is used with WHEN, THEN and OTHERWISE when dealing with a 'multiple choice' selection. Must be terminated with an END instruction. E.g.

```
SELECT
WHEN a THEN x
WHEN b THEN y
OTHERWISE z
END
```

SIGNAL: This is the branching instruction. When followed by a label name it acts as a 'GO TO' statement: SELECT x (got to x:), for example.

If it is followed by any of these keywords, it acts as a trap for the corresponding event. The ON/OFF option toggles the trap.

SIGNAL ON SYNTAX: Goes to label syntax: if a syntax error occurs.

SIGNAL ON NOVALUE: Goes to the label novalue: if a variable is called that has not yet been given a value.

SIGNAL ON BREAK_C(or D or E or F): goes to the label BREAK_C: (or D..etc) if any of the keys ctrl-C to ctrl-F have been pressed.

There are some more minor options which we omit here.

The special variable SIGL will contain the line number where the SIGNAL occured.

Remember that labels are any valid ARexx symbol followed by a colon. THey have no effect, and merely act as placemarkers.

INPUT, OUTPUT AND PARSING

These instructions handle all the keyboard input and text output

SAY: This instruction prints out to the console.

PARSE: A very powerful instruction with many options.

PARSE [UPPER] PULL aaa: read the keyboard input into the template aaa. The optional UPPER keyword converts it to uppercase. PULL is shorthand for PARSE UPPER PULL, and may be used on its own.

PARSE [UPPER] ARG bbb: puts the arguments to a function or macro into the template bbb. As above. ARG may be used as shorthand for PARSE UPPER ARG.

PARSE VAR a1 ccc: puts the value of a1 into the template ccc. It is very useful for scanning the constituent parts of a string.

There are a number of other options for PARSE, but they are not dealt with here. Templates are an extensive subject. Refer to the main text for some simple examples of the use of PARSE.

FUNCTIONS

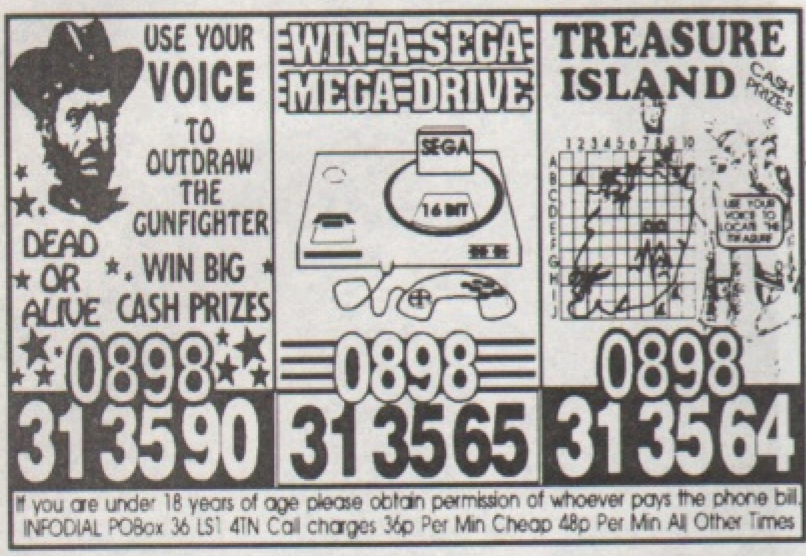
Functions are sub-programs which can be called from the main code to perform a specific task.

CALL: Used to call a function, espcially when the function is not evaluated.

PROCEDURE: This instruction is used in program functions that want to hide their data from the main program (keep it local). Normally all variable names are global. This instruction can also be used with the optional EXPOSE keyword, which allows some of the variables to be global. For

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AREXX JUST WHAT IS IT?

We will deal with the last two of this list shortly, when we look at the second aspect of the triple use of ARexx – Macros. The built-in functions are documented in the separate section.

Functions defined in an ARexx program take the highest precedence, and override other functions that may have the same name, whether they are built-in or in an external library.

All functions are called from the program either through the use of the instruction CALL or as part of an expression that is evaluated and gives a result. Program functions are written after the last EXIT clause of the main program; they are indicated by a label, which consists of their name plus a colon. The arguments given to a function are read in, using the PARSE instruction that we have already seen, this time using the option ARG. Results are then returned to the program using the RETURN instruction. The passing and retrieving of variables to and from functions and macros are very flexible when using ARexx. This is a much larger subject than we can cover here – we may look at it in a later issue. A good understanding of the PARSE instruction helps. In Listing 7, we give an example which covers the basic elements.

LISTING 7

```
/* function use */
a =19 ; b = 20
say tot(a,b)
exit
tot:
parse arg a,b
sum = a + b
return sum
```

We hope these simple examples, along with the instructions in the cut-and-keep section, will encourage you to experiment and get a flavour of the language.

2 MACROS

Macros is a term for small programs or sub-programs which can be used to build a larger unit. A powerful feature of ARexx is that any ARexx program can be called from any other as a sub-program. This allows the user to build collections of programs that manage system tasks, and which can easily be called when needed, either from the Shell, or from another ARexx program.

ARexx macros come in two flavours: functions and commands. We have already seen how functions are defined internally in a program. To write a function that is available to the system all the time, write it in exactly the same way as you would an internally defined function, but save it in a separate file called funcname.rexx, which you can save to your rexx: directory, or any other directory which is available in your workpath. 'Funcname' should be the name of the function itself. Now if you call the function from your ARexx program, it will search for it in the internal, built-in and library functions, and presumably not find it there. It will then search your current directory, rexx: and any other available paths. Having found it, it will load it up as normal, add it to the list of internal functions, and continue with the computation.

We said that macros can also be commands. Commands can be any ARexx program – as we said, they can be called from any other ARexx program, but because they do not use the RETURN instruction to pass results to the calling program, a different method has to be used. If the macro merely performs an action, and does not return a result, then there is no problem. Otherwise, the value with which the macro EXITed will be returned to the calling program in a special variable, RESULT. In this way, macros can behave very similarly to functions. Listing 8 shows two programs: one is a macro which is saved under the name test.rexx, and the other is a program which calls this macro and gets a result from it.

LISTING 8

```
/* test.rexx */
/* this macro takes a string and a
number as arguments, and returns
the remainder when the length of
the string is divided by the number.
*/
parse arg string number
len = length(string) ; say len
rem = len // number
exit rem

/* program to call test.rexx */
/* we need the next line to read
RESULT */
options results
s1 = "abracadabra"
test s1 4
say RESULT
exit 0
```

Running the second program in Listing 8 will call the macro test.rexx, which will print the length of the string and return the remainder to the main program, which will then print it out. Notice that an enhanced variation of this simple macro could be used to format text.

Do not let the differences between function and command macros confuse you. Look at it as two different ways of doing the same job, and use the one which is more appropriate to you. One reason for the difference between commands and functions is due to the way data are passed through ARexx ports. You will find that the vast majority of programs with ARexx support use commands;

SUMMARY OF THE MAIN AREXX INSTRUCTIONS/FUNCTIONS

instance, myfunction PROCEDURE EXPOSE x y will allow the variables x and y to be global. All other variables will be private to the function

RETURN xxx: exits from the function, and returns the variable xxx to the main program.

GENERAL CONTROL

These instructions are perhaps more relevant to the generation of process macros for controlling applications

ADDRESS [PORT[command]]: Sets a current AREXX port for sending commands. If a command is specified, it is sent to the port. If used with no keywords, it toggles the current port with the previous one. The special port name COMMAND refers to the CLI that launched the program (not to be confused with the actual command sent).

OPTIONS: sets certain ARexx options, according to the keywords that follow it.

OPTIONS RESULTS: Enables the special variable result to store the return code of external macros. This is the way that ARexx commands return values to the main program.

OPTIONS PRMPT xxx: sets the prompt when PULLing from the keyboard, for example: OPTIONS PROMPT '->' or OPTIONS PROMPT 'Yes Please?'

OPTIONS FAILAT nn sets the level at which return codes are flagged as errors.

NUMERIC: controls the handling of numbers.

NUMERIC DIGITS n: Sets the numeric precision for calculations.

NUMERIC FORM keyword: Keyword must be either SCIENTIFIC or ENGINEERING.

NUMERIC FUZZ n: error tolerance, i.e. the number of digits to ignore when numbers are compared.

INTERPRET string: A powerful feature that will interpret the supplied string, just as if it was a program line.

TRACE: Controls the tracing and debugging modes of ARexx. Not dealt with here.

EXIT n: Terminates the program and exits with return code n.

INTERNAL FUNCTIONS

This is a list of the major ARexx functions likely to be of interest to the beginner. It is not intended to be complete.

FUNCTIONS WITH CORRESPONDING COMMANDS

ADDRESS(): Returns the current host address.

ARG([n]): Returns the number of arguments to a function if no parameters are given. Otherwise returns value of the nth argument.

UPPER(string): Converts string to uppercase.

TRACE(): Used to control trace modes.

FUNCTIONS FOR FILE ACCESS

OPEN(lfn,file,'R or W'): The specified file is opened, under the logical file name lfn. R or W determine whether the file is open for reading or writing. If the operation succeds it returns 1 otherwise 0. Very similar to corresponding BASIC functions.

CLOSE(lfn): Closes a previously opened file.

EXISTS(): Checks if a file exists, and returns 1 if it does, otherwise 0

READLN(lfn): Reads and returns one line from the specified open file.

WRITELN(lfn,string): Writes string to open file as a line. Returns its

the command interface is somewhat easier to implement than the one for functions.

One good application for macros is to harness useful utilities that may be provided by programs with ARexx interfaces into your own code. Examples of this are file requesters and string input gadgets.

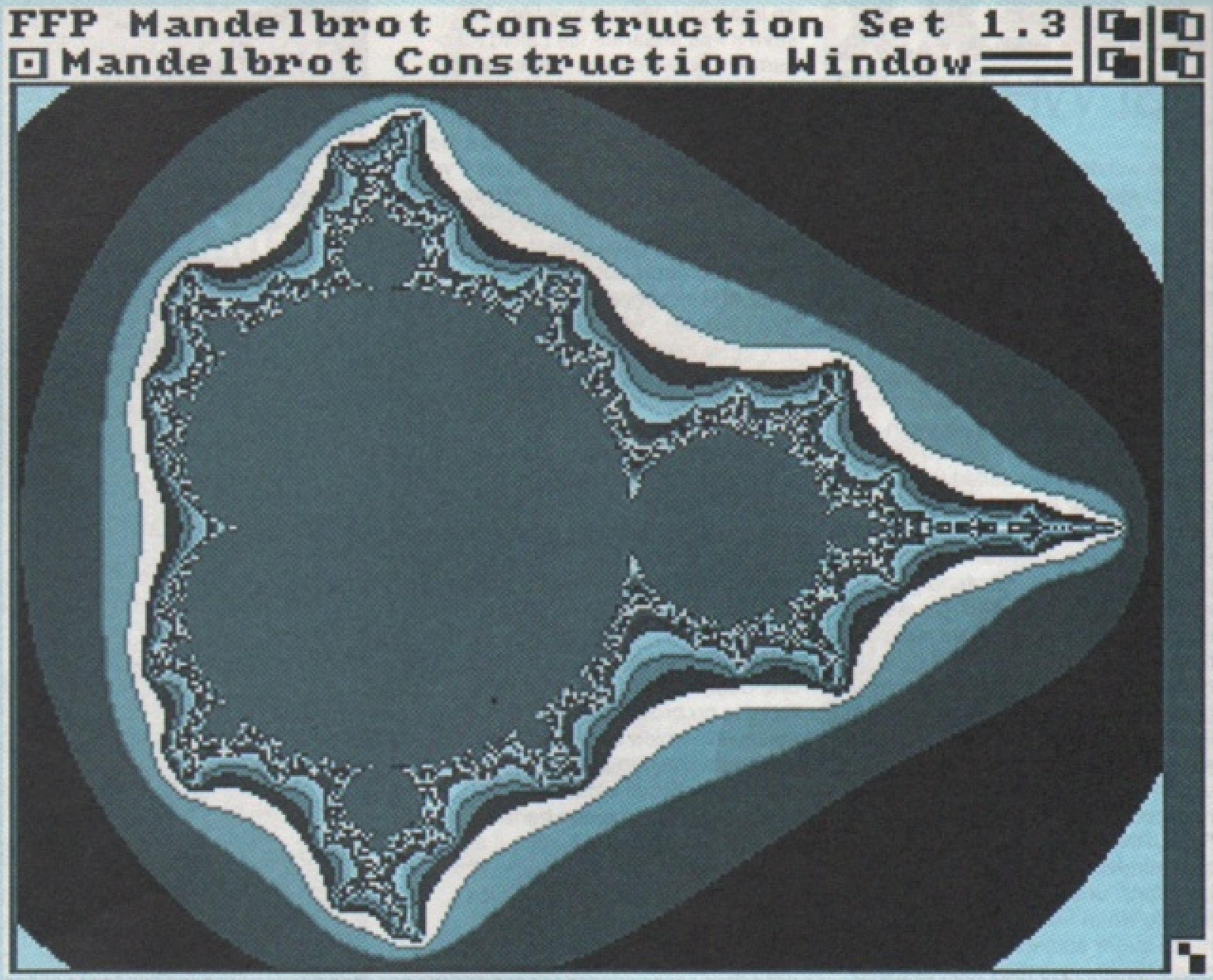
Macros can also make use of custom ARexx function libraries. Function libraries exist that give access to all kinds of Amiga system features. In fact, it is possible to write fully 'Intuitionised' ARexx programs that are mouse-driven and use all the regular features of standard Amiga programs, such as menus and gadgets. Any feature that is available to Assembly or C programmers can be accessed from ARexx using more advanced function libraries. In order to be used, ARexx support libraries must of course be in the libs: drawer, and must also be mounted on the ARexx library list, using the RXLIB command from the CLI, or the ADDLIB() built-in function.

Another extremely useful application, which we have already hinted at, is to use the high level language convenience of ARexx as a substitute for awkward AmigaDOS scripts. Where complex computing structures are involved in an evaluation, they can be handled from ARexx, and the final form of the command to be used can be built up as an ARexx string. This string can then be sent directly to AmigaDOS to be executed, just as if it had been typed in at the Shell. We will see how this is done when we look at ports and the ADDRESS instruction in the section on Interprocess Communication.

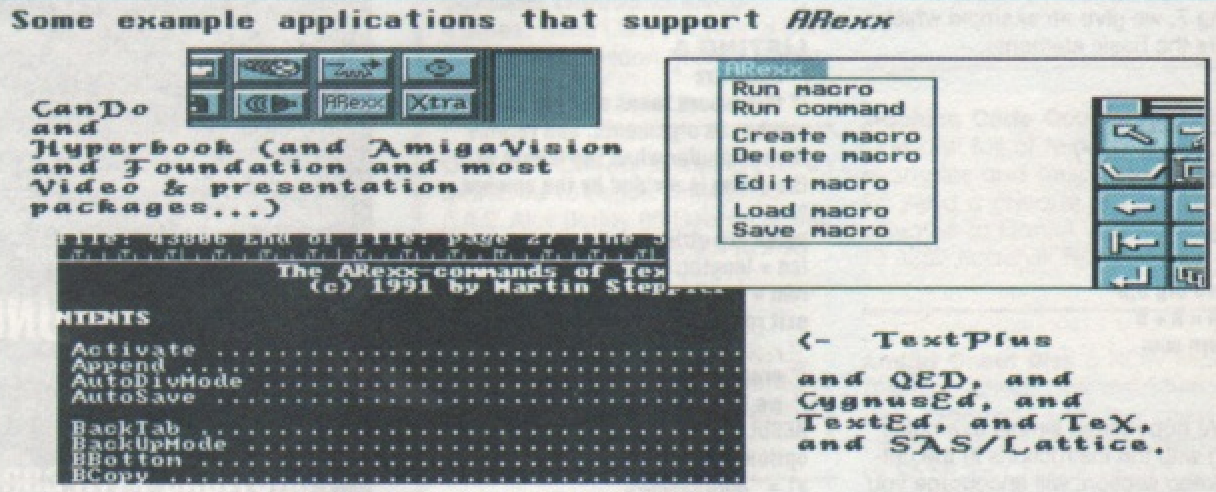
3 INTERPROCESS COMMUNICATION

All the above features make for very useful computing, but what really distinguishes ARexx is its ability to interprocess communication. This means that programs running simultaneously on the Amiga can exchange information and send commands to each other. This ability makes for a new and revolutionary way of computing.

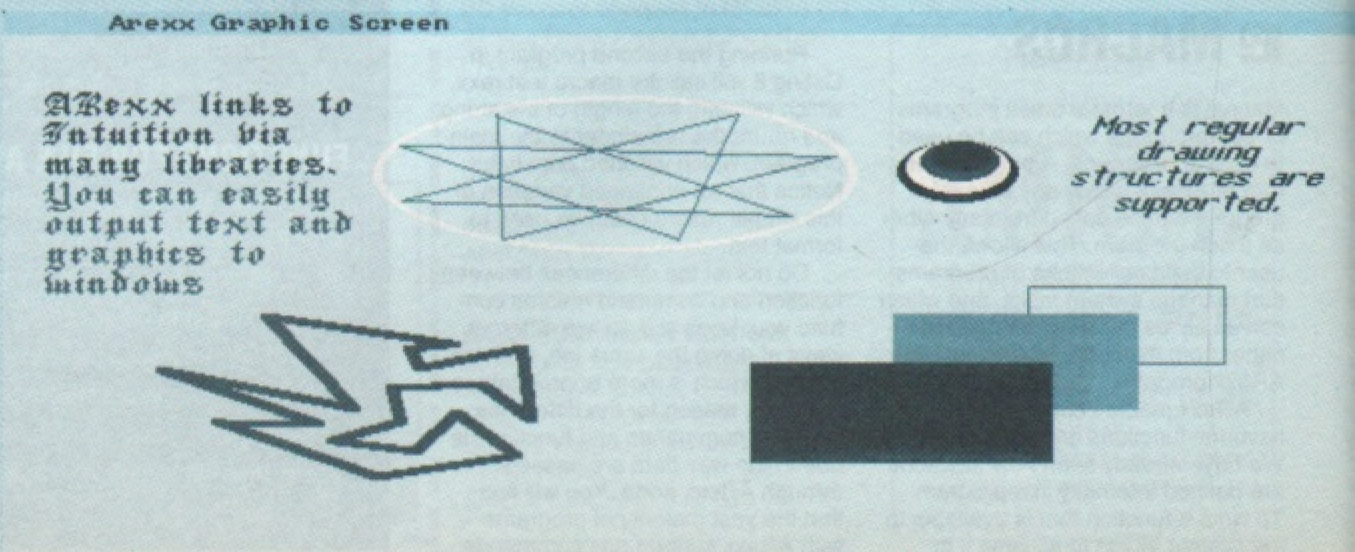
Let's have a brief look at how this is implemented. Every ARexx compatible program has a 'port'. A port is a piece of code connected to the operating system, via which commands and data can be sent and received. Each of these ports has a name by which it is recognised. The ARexx interpreter itself has a port, called REXX. In fact, the interpreter maintains two ports, one of which is current, and one which is in reserve. All messages from ARexx are sent to the current port. When a new port is



The use of ARexx isn't limited to macros within applications, but across them as well. As a consequence, a series of events can be set off at virtually any time – and very simple to execute they are, too.



But ARexx is also useful as a language separate from any other application or utility. It's easy to access libraries contain all manner of useful intuition, sound and graphic-related control. It's this sort of flexibility that makes ARexx such a pleasure to use and, wn compared with, say, AmigaBASIC, it makes you wonder how we managed before it came along.



addressed, it becomes the current port, and the last port that was used goes into reserve.

When ARexx starts up, the reserve port is a special port called COMMAND, and it represents the Shell from which the program was launched. We have already mentioned this when we discussed sending macros to AmigaDOS. The instruction ADDRESS is used to access ports. It is followed by the name of the port to be made active. It can also be immediately followed on the same line by the message to be sent. If the ADDRESS command is issued without any arguments, it toggles the current and previous ports, as shown here:

```
address   /* toggle between current and previous ports */
address SUPERDUPER   /* set the port of the SuperDuper program as current */
address COMMAND 'dir opt a'   /* send the command 'dir opt a' to the current CLI */
```

ADDRESS() can also be used in its function form, where it returns the name of the current port.

It is very important to have the ports of your ARexx program correctly set. The reason for this is as follows: any line that is meaningless to the interpreter (provided it is not a syntax error) is assumed to be a command for an external program, and is immediately sent to the current port.

It is also possible to open more ports from within an ARexx program using the OPENPORT command from the support library provided with ARexx.

The best way to find out about interfacing with ARexx-compatible programs is by practice. Get hold of a program with an ARexx interface, and try it out. There are many good PD programs with ARexx interfaces. One should be on this month's cover disk. If you are already using one of the excellent commercial products with an ARexx interface, such as *ASDG Art Department*, *Bars And Pipes*, or *CanDo*, ARexx will offer you many ways to enhance your work. We also predict that very few future Amiga products will lack an ARexx interface, so there are many long-term benefits to be had from getting familiar with it now.

EXPLORE...

The above is by no means a complete description of ARexx. In addition to the material outlined, ARexx has many advanced features. These include excellent tracing and debugging utilities, which allow the programmer to find and flag errors easily, and also to run programs which issue potentially destructive commands in a protected 'test' mode. There are also features like syntax/semantics collapsing, which can be very useful in problem-solving applications. However, these subjects are more advanced, and we may look at them another time. You will not need them to start with.

See, it's not as overtly complex as it initially seems.

Hopefully, we've given you a slight push in the right direction, and we hope you will have a lot of fun with your initial experimentation with ARexx ...

PD AREXX LIBRARIES

A number of PD ARexx libraries are available. Here are some of them:

REXX INTUI.LIBRARY – allows the use of graphic and intuition functions.

REXXMATHLIB.LIBRARY – allows the use of math & trigonometric functions

RXGEN.LIBRARY – allows AREXX to use any Amiga shared library.

NEXT MONTH

As we browse through the many intricacies which ARexx offers, next month we will be looking more specifically at its many functions. We'll be going into greater depths regarding key instructions which the ARexx user will use on a regular basis, and will be tinkering with examples to show you just what they do. It's all here next month – make sure you are...

MORE INFORMATION

The full distribution of ARexx has extensive documentation on the language, including its technical implementation. It costs in the region of £30. Also, a very good book on the subject is 'ARexx Programming on the Amiga' by Chris Zamara, published by Abacus, again available at just over £30.

SUMMARY OF THE MAIN AREXX INSTRUCTIONS/FUNCTIONS

length.

READCH(lfn,length): Reads the specified length of bytes from a file, or to the end if the file is shorter.

WRITECH(lfn,string): Writes string to an open file. Returns its length.

SPECIAL FUNCTIONS

ADDLIB(library,priority,offset,vers): Adds a special ARexx shared library to the list kept internally by the system. It has the same effect as the rxlib command used at the CLI. A typical call, which can be used for mounting most libraries, is AddLib('rexxsupport.library',0,-30,0)

SETCLIP(clip,value): Set the value of a clip.

GETCLIP(clip): gets the value of a clip. Clips can be used to store data so that they are accessible to all ARexx programs in the system.

PRAGMA('DIRECTORY'): returns the cd from which program was launched.

TIME(): returns the current time.

FUNCTIONS THAT DEAL WITH STRINGS

The majority of ARexx functions deal with strings.

COMPARE(s1,s2): Returns the first position where the two strings differ.

INDEX(s1,pat): Returns the first position that pat occurs in s1.

LASTPOS(pat,s1): Returns the position of the last occurence of pat in s1.)

LENGTH(s1): Returns the length of s1.

LEFT(str,len): Returns the len leftmost characters of the string.

RIGHT(str,len): as above, the rightmost characters.

REVERSE(str): reverses the string order.

TRIM(str): Removes trailing blanks.

WORDS

ARexx also provides functions that treat strings as 'sentences'.

WORD(s1,n): Returns the nth word in s1.

WORDINDEX(s1,n): Returns the position of the nth word in s1.

WORDLENGTH(s1,n): Returns the length of the nth word.

WORDS(s1): Returns the number of words in s1.

CONVERSION FUNCTIONS

For swapping data between number bases or string values. These are illustrated with examples:

B2C('111000') returns 8 (convert binary to literal - '8' is 0x38 ASCII)

C2B('A') returns 0100 0001 (convert literal to binary format)

C2D(8) returns 56 – The decimal ASCII valueof 8

C2X('8') returns 38

D2C(65) returns 'A'

D2X(65) returns 41

NUMERIC FUNCTIONS

ABS(n): Returns the absolute value of n.

MAX(a,b,[...]): Returns the maximum ofthe supplied numbers.

MIN(a,b,[...]): Returns the minimum of the supplied numbers.

SIGN(nn): Returns 1 if nn is positive, -1 if it is negative.

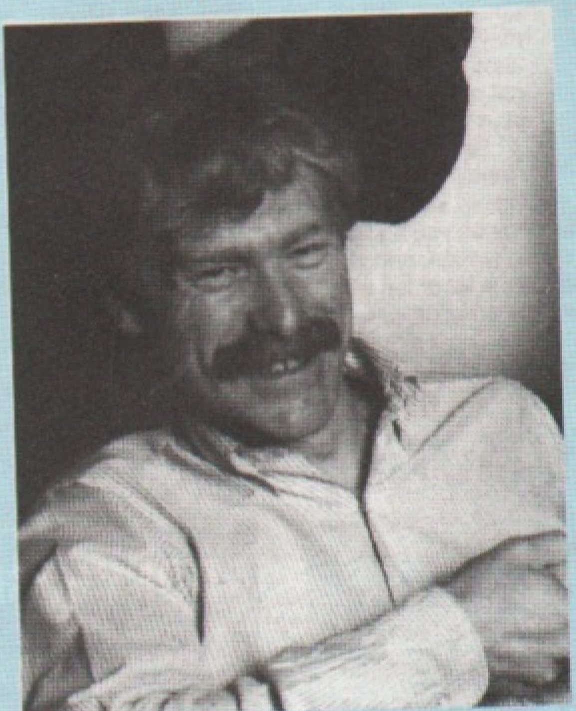
CD FOR YOURSELF

What exactly is happening with the CDTV? Is it really going to be the brave new world that Commodore are touting it as? Palace Software's Pete Stone expresses his opinion on where Commodore's potentially-exciting unit is heading, and why it is taking so long...

FUTURE TENSE

Commodore's much-touted CD system was in development for three years and has cost millions to research and produce. The machine has been officially on sale in Britain for several months but, unofficially, it has been available for more than a year. Even so, it has not been the hit that Commodore expected it to be and the machine has come under increasing threat from Philip's CD-I system. Compared to the Amiga's first year sales of 60,000 in Europe and 90,000 in the States the CDTV has struggled to sell more than 15,000 in this country. These figures suggest that either the machine has flopped, or that there are serious flaws in the sales and marketing department of Commodore UK.

Commenting on Commodore's dealings with CDTV, Peter says: 'With hindsight, they shouldn't have tried to launch the product onto the main market before a cult following had been created. With any new product it's best to convince the opinion leaders first and let them persuade the rest of the world via word of mouth. Commodore also needed some mind-blowing software to make people sit up, take notice, and also buy their machine, and this still isn't forthcoming. They seem to have presumed that people have bought the CDTV for the machine itself and have not perceived that most people want the CDTV because of the software's potential. As far as I know, no one has been approached by Commodore to produce demonstration software and the impression we got when we spoke to them was that, surprisingly, there's not a lot of enthusiasm on their part to back software for the system.'



UNDAUNTED

Nevertheless, Pete is still undeterred by this apparent apathy. 'In terms of direction, we're working very much towards CD-based projects,' he says. 'We feel that CD-ROM is the future of the market – going way beyond floppies or even cartridges. CDs are easier and cheaper to manufacture; also, they can't be pirated, they hold huge amounts of data and they have excellent sound capabilities. And as hardware improves we will definitely be seeing FMV (Full Motion Video) before the end of the decade. Having said that, there are two drawbacks with the system. Firstly, disks, in whatever format, are still very slow in transferring data between themselves and the computer. And, secondly, the stagnant market place for the product is not conducive to financial outlay. There's no point in a relatively small software house, like us, pouring loads of money into developing software for the CDTV unless we have the backing of a hardware corporation such as Commodore. If hardware companies want their machines to be successful they must work more closely with the software companies. We need quality, value-for-money games and utilities out there now. I already know owners of CDTVs whose machines are just gathering dust.'

When talking about the problems arising when developing CD product Pete is surprisingly dismissive. 'There are no real programming problems,' he says. ' The hurdles that have to be negotiated all arise from the sheer size of each project. As far as working with digitised graphics are concerned the main headaches are with actors, make-up, lighting and set design. We are entering a whole new genre of entertainment, and software developers are now having to learn how to become film directors. The sheer co-ordination of a project such as Palace's *Jekyll And Hyde* is a nightmare. I have five full-time programmers and two artist working around the clock as well as over twenty-five assorted coders working part-time.'

Strangely enough, Peter is producing *Jekyll and Hyde* for the Amiga and has not considered a CDTV version yet. 'It's a shame,' he concedes. 'When you think of the amount of sound and graphics you can put into a CD game and then you realise that it's not worth you putting a version out because the user base is so small, it's such a waste. We'd probably put a hundred times the amount of animation into a CD version of *Jekyll* than into the Amiga, which means that a short burst of animation on the Amiga would run for a full twenty seconds on the CDTV. *Jekyll* will have cost £100,000 by the time its completed so it's not financially viable at the moment. Not until the user base picks up.'

LOOKING AHEAD

So what of the future? 'The Amiga is already being left behind. Even by the PC. People don't realise that, although the Amiga has a far wider user base in the UK, it trails behind the PC in world sales. Also, generally speaking, PCs are faster, use more colours and all owners have a hard drive. Our next game will use ten disks – try putting that on an Amiga! Also PC owners rarely pirate software. Even the CDTV and CD-ROMs are in danger of becoming redundant. Already Philips CD-I is a superior machine and it won't be long before the Japanese come up with something of their own. As far as we're concerned we'll cover all CD systems because all our games will be created from video footage that, once digitised, can be transferred to most systems with relative ease. I just hope Commodore can do their future machines justice.'

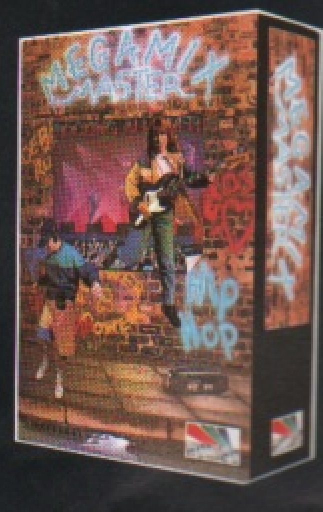
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INSERT-Inserts the contents of the cut buffer into the soundwave.

SPLICE-Removes the sample between pointers, stores it in the cut buffer then slides the rest of the soundwave together.

CHOP-Removes all of the soundwave except for the sample between pointers.

DELETE-Erases the sample between pointers.

MIX-Mixes the contents of the cut buffer with the soundwave.

FLIP-Reverses the sample between pointers.

PLAY CUT-Replays the contents of the cut buffer.



ECHO-Adds user definable echo between pointers.

IN-Makes Sample between pointers start quietly and build up to full volume.

OUT-Offers the opposite effect to **IN**.

PHASER-Adds phase shift to your sample.

LOUDER-Adds volume.

QUIETER-Decreases volume.

SEEK 0-Finds zero points nearest pointers, used in looping.

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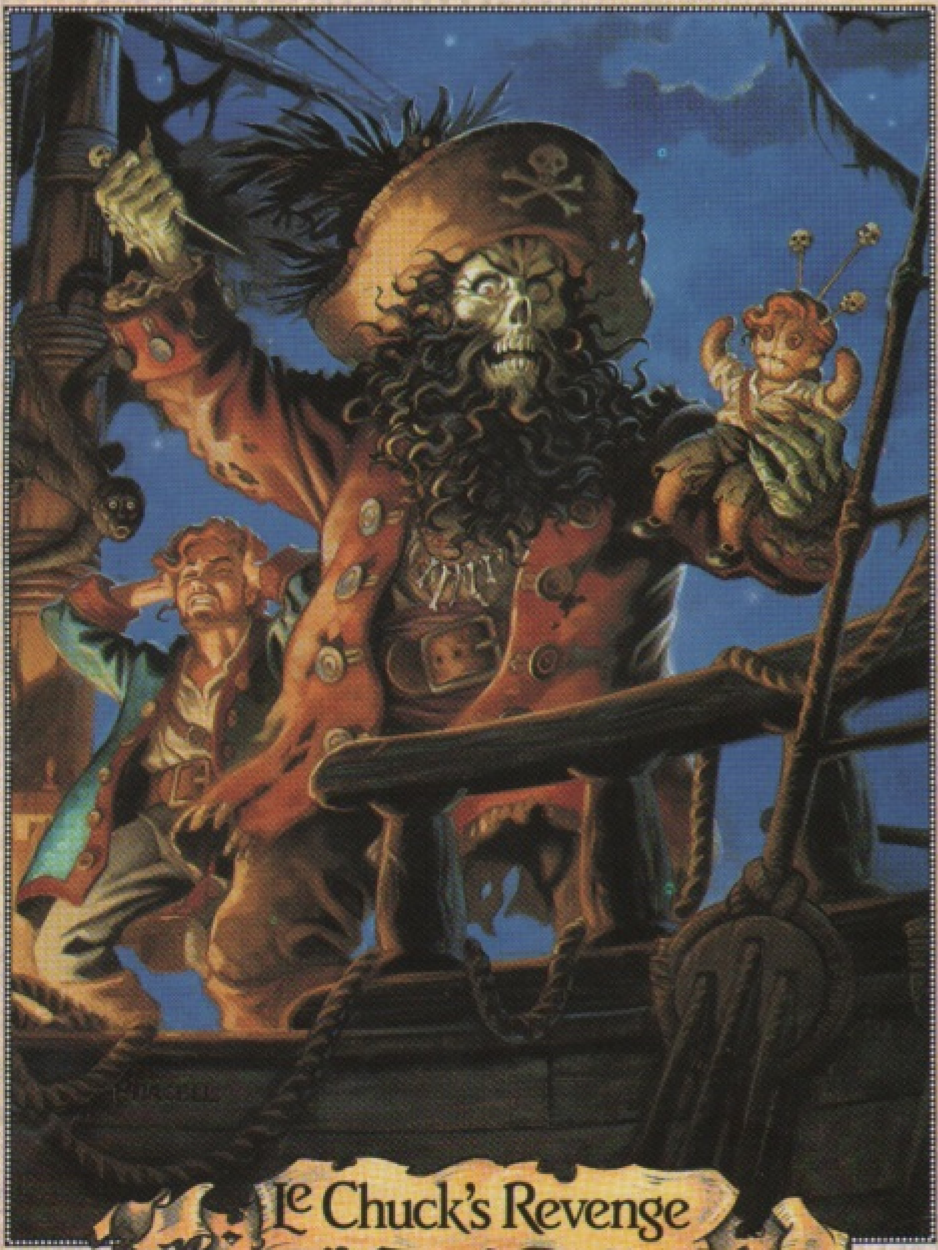
NOBODY LAUGHS WHEN THIS PIRATE PLAYS WITH DOLLS.

It's giving Guybrush a headache.
He's become a bore, endlessly telling the story of Monkey Island 1. If the braggart doesn't find a new crusade soon, he'll be buying his own grog at the Bloody Lip Bar.

Vengeance is his trademark™.
In Monkey Island 1 LeChuck's nuptial vows went up in fizz. Now he's back with a new vow - wreak revenge on Guybrush Threepwood.

Who will cough up the Big Whoop?
This legendary treasure of the high seas is up for grabs. There's more at stake than just wealth; for Guybrush it's his last chance to certify himself as a world class pirate on a pirate's ship in a pirate's sea blah blah blah.

Available on: IBM PC , VGA, & AMIGA



LeChuck's Revenge
MONKEY ISLAND 2

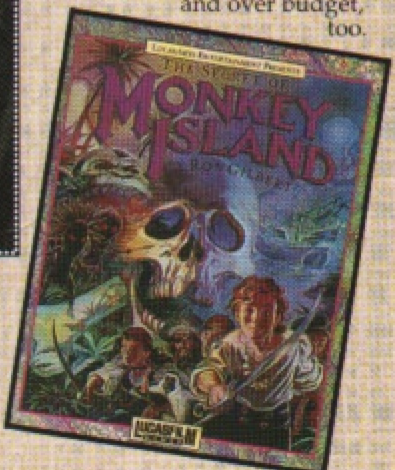
Visit faraway islands and get lost.
Take your pick of adventures from Scabb to Phatt Island. And with multiple levels of play, even your average marketing type can feel smart.

We've reassembled the original cast.
Stan's back in a new undertaking. Along with the Voodoo Priestess, Governor Marley, and other favorites from Monkey 1. Plenty of cryptic in-jokes, too.

Incredible VGA art.
We hired 256 out-of-work artists from Los Angeles and crammed them six-deep in an office until they came up with pictures we liked.

Incredible music and sound effects
All of the musicians we wanted are working in 70's comeback bands. So we scored a few tunes ourselves, added some great sound effects and went home.

We did the best we could.
We're not perfect. But we think scanned art, scintillating soundtracks, rehashed jokes and a great story gets us close and over budget, too.



Also available on: PC, Atari St, Amiga,



Haunting secrets from the first game revealed



Illiteracy-driven icon system



Thicker, richer puzzley goodness

Screen shots are only intended to be illustrative of the gameplay and not the screen graphics which may vary considerably between different formats in quality and appearance and are subject to the computers specifications.

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